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This document reports on the evaluation of the National Environmental Specimen Bank Survey (EPA-600/1-76-006), a joint program funded by EPA, NSF/RANN, and NBS. This survey, performed by Oak Ridge National Laboratory for EPA, was an attempt to identify and obtain information from organizations and individuals presently collecting and storing environmental specimens to be utilized by EPA in establishing the National Environmental Specimen Bank. The evaluation of the sampling, storage and analytical methodology used by these collecting organizations was performed by personnel of the NBS Analytical Chemistry Division. It was revealed that virtually none of the currently existing collections are suitable for valid retrospective analysis.

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FOREWORD

The many benefits of our modern, developing, industrial society are accompanied by certain hazards. Careful assessment of the relative risk of existing and new man-made environmental hazards is necessary for the establishment of sound regulatory policy. These regulations serve to enhance the quality of our environment in order to promote the public health and welfare and the productive capacity of our Nation's population.

The Health Effects Research Laboratory, Research Triangle Park conducts a coordinated environmental health research program in toxicology, epidemiology, and clinical studies using human volunteer subjects. These studies address problems in air pollution, non-ionizing radiation, environmental carcinogenesis and the toxicology of pesticides as well as other chemical pollutants. The Laboratory develops and revises air quality criteria documents on pollutants for which national ambient air quality standards exist or are proposed, provides the data for registration of new pesticides or proposed suspension of those already in use, conducts research on hazardous and toxic materials, and is preparing the health basis for non-ionizing radiation standards. Direct support to the regulatory function of the Agency is provided in the form of expert testimony and preparation of affidavits as well as expert advice to the Administrator to assure the adequacy of health care and surveillance of persons having suffered imminent and substantial endangerment of their health.

This report documents one aspect of an International effort, supported by EPA, to provide a comprehensive environmental monitoring program to assess the relative risk of environmental hazard to the health and well-being of our population and to aid in the improvement of our environmental quality. This program, the National Environmental Specimen Bank, will serve as an environmental warning system by providing real time chemical analysis of collected specimens. In addition, this system would permit the use of tomorrow's more sensitive and more specific methods of chemical analysis on stored samples. The advantages of such a program will permit us to assess the effectiveness of our present environmental control techniques by monitoring pollutant trends, as well as establishing environmental baseline levels of new pollutants or pollutants of current concern not previously investigated.

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ABSTRACT

This document details an evaluation of the National Environmental Specimen Bank Survey (EPA-600/1-76-006), a joint program funded by EPA, NFS/RANN, and NBS. The survey, performed by Oak Ridge National Laboratory for EPA, was an attempt to identify and obtain information from organizations and individuals presently collecting and storing environmental specimens which could be of use by EPA in establishing a National Environmental Specimen Bank. The evaluation was concerned with sampling methods, storage and analytical methodology used by these collecting organizations and was performed by personnel of the NBS Analytical Chemistry Division. It was revealed that virtually none of the currently existing collections are suitable for valid retrospective analysis.

This report was submitted in partial fulfillment of Interagency Agreement No. IAG-D4-0568 by the Analytical Chemistry Division, National Bureau of Standards under the sponsorship of the U.S. Environmental Protection Agency. This report was completed in August 1976.

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The authors gratefully acknowledge the tireless assistance of the Library Staff of the National Bureau of Standards on much of the information in Appendix A. Thanks are also due to Ms. D. Mullinix for her efforts both in library research and in the typing of the survey evaluation forms.

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SECTION 1

INTRODUCTION

This is the final report on the evaluation of the National Environmental Specimen Bank (NESB) Survey. This survey evaluation is TASK 1 of the National Bureau of Standards (NBS) - Environmental Protection Agency (EPA) Interagency Agreement No. EPA-IAG-D5-0568, entitled "Evaluation and Research of Methodology for the National Environmental Specimen Bank."

The NESB is a cooperative program jointly supported by EPA, NSF/RANN, and NBS. In 1974, plans were initiated, with the EPA as lead agency, to investigate the feasibility of establishing an NESB. The specific objectives were set forth, which included:

(1) serve as an environmental indicator through the measurement of pollutant trends

(2) provide historical specimens for measurement of contaminants not previously investigated, and retrospective analysis of samples as analytical methods are improved

(3) establishment of criteria for the standardization for sampling, storage and measurment techniques for use by the NESB and independent investigators

(4) make samples and/or data available to user groups for specialized studies

(5) provide information useful for the assessment of current environmental policies

(6) establish a framework for national coordination to optimize environmental research and monitoring

(7) foster cooperation and establish working arrangements for the exchange of information and specimens on an international basis.

It is self-evident that the potential dangers to the environment by increased levels of trace substances and persistent chemicals is significant and apparently increasing with time. The establishment of a substantial effort towards the implementation of the NESB would provide the capability of continuous environmental monitoring and allow retrospective evaluation of environmental samples. As an ecological indicator, the NESB would provide information and data on trends reflecting pollutant dynamics in the environment, which is essential for assessing the effectiveness of pollutant abatement measures. This flexibility would also allow for the detection, monitoring and retrospective evaluation of newly discovered pollutants or pollutants of current concern not previously investigated.

SECTION 2

CONCLUSIONS

The NESB Survey has been successful in obtaining information on 663 existing specimen and data collections in the United States. The evaluation of the apparent usefulness of these collections for the NESB has indicated that few, if any, of these presently existing collections have sufficient documented information indicating they had been sampled, processed and stored under the exacting conditions required for retrospective chemical analysis of various trace substances.

It is also clear that additional contacts should be made with the custodians of potentially useful collections, in order to foster further communication and cooperation. Further, it is felt that the guidelines currently being established by NBS for container and implement cleaning, sampling, processing, and both short and long term storage, should be widely desseminated in order to upgrade these methodologies for those organizations and/or individuals who are interested in future retrospective capabilities.

SECTION 3

THE NESB SURVEY

The purpose of the NESB Survey was to identify and obtain information from the organizations and/or individuals that are currently (or have been at sometime in the past) collecting and storing environmental specimens for either research or monitoring activities. The mechanics of this survey were organized and performed by the Environmental Sciences Division of the Oak Ridge National Laboratory with input from personnel of EPA, NSF/RANN, and NBS. Details of the survey itself, and specific bibliographic information on each of the survey replies can be found in the EPA Report No. EPA-600/1-76-006 (January 1976).

The specific objectives of the Survey were to identify the following:

(1) location of existing collections;

(2) organizations and specific individuals who maintained the collections;

(3) classification of samples contained in the collection;

(4) specific sampling, sample handling and storage techniques used for these collections;

(5) purpose for which the samples had been taken and maintained; and

(6) availability of these collections to outside researchers.

A reproduction of the NESB Survey form is included as Appendix B.

It should be noted here that it was realized at the outset that many Survey replies would be returned lacking sufficient information to completely and finally evaluate the specimen collections. This has proved to be true. In most of these cases, however, enough information was provided so that identification of potentially useful collections could be identified for further contact and evaluation. Even though the number is few, it is strongly felt that an in-depth evaluation of these potentially useful collections should be a high priority item for future EPA consideration.

SECTION 4

EVALUATION OF THE NESB SURVEY

A total of 663 of the returned survey forms sent out by ORNL for the NESB have been studied and evaluated at least two times by personnel of the Analytical Chemistry Division of the NBS, with regard to the suitability of the specimen collection for sample integrity after long term storage. Few of the survey respondents answered the questions in sufficient detail to give a definitive answer, but most of the collections appear to be of use largely for taxonomical purposes.

First of all, it must be emphasized that the fundamental considerations for evaluation of these collections were based solely on the suitability of the sampling, sample handling and long-term storage techniques for the analytical determination of any of the listed components individually. These components are: trace elements; pesticides; other trace organics (e.g., petroleum, PCB's); radionuclides; and lastly microbiological species. The responses were evaluated solely with respect to suitability for a National Environmental Specimen Bank. Although most of the collections may be highly suitable for the purposes for which they were taken, the very stringent conditions required to obtain and maintain vaiable, contamination free samples stored over long periods of time, to be used for retrospective trace analytical measurements, were in the most part not met, although in some cases insufficient detailed information was supplied for a definitive decision to be made.

Some of the criteria considered for the evaluation are discussed in Appendix A (Literature survey on sampling, sample handling and storage). The criteria on which the collections were evaluated are found in Appendix C (Evaluation Criteria for Existing Environmental Specimen Collections). The evaluation system used is given in the Survey Evaluation Guide on page .

SECTION 5

SURVEY EVALUATION GUIDE

In many cases a simple one letter rating could not be given, either owing to the lack of information supplied or to the complexity and diversity of the information included on a single form, i.e., components of interest, sample containers, and/or storage conditions. Future surveys could be more easily evaluated if one form was submitted for each component of interest in each type specimen of interest. It was often impossible from the information given to ascertain such things as which samples had been stored in plastic, which in glass, which had been dried, which frozen, which stored in a preservative, etc. An attempt was made to specify the evaluation by the use of footnotes; i.e., a given grade was indicated if stored in plastic, another grade, if stored in glass, etc., also generally followed by an "I" for insufficient information. Any "I" could change in either direction, provided the additional information is made available.

Although some of the criteria for optimum conditions may change with changing technology, a few definitive conditions have been established for certain types of sample treatments. For example: (1) the storage of samples for the determination of trace organics and pesticides in most plastic containers automatically makes the sample unacceptable; (2) the storage or immersion of any sample in a liquid preservative such as alcohol or formaldehyde also invalidates the sample for trace lement, trace organic, pesticide or radionuclide determination; (3) the failure to use sterile sampling conditions for microbiologicals would also result in samples of doubtful value.

In effect, the conditions for samples to be stored for NESB purposes are unique. The sample is to be stored for later analytical determination of a component which may not be identified or even considered before sampling and storage, therefore the most careful sampling and storage methodology must be used if subsequent analysis, perhaps years later, is to be meaningful.

A - Optimum procedures used...

B - acceptable procedures used...

C - potentially useful....

D - limited usefulness....

E - not useful...for the very specialized purposes considered here

I - Insufficient information was contained in the returned survey form on which to base a decision

SECTION 6

ENTRY IDENTIFICATION NOTE

The first (upper) number (e.g. <42>) for each entry appearing in the tables is the initial accession number assigned by ORNL in the computer print out of the NESB Survey Data Base originally sent to NBS. The second number (e.g. -41-) is the accession number assigned by ORNL in the final published summary of the NESB survey (Publication No. EPA-600/1-76-006, Jan. 1976, National Environmental Specimen Bank Survey, by R.I. Van Hook and E.E. Huber). Both numbers are listed in order to permit easy comparison of the individual NBS evaluations with the respective entry in the NESB Data Base. Five returned survey forms received by NBS from ORNL early in the study were evaluated by NBS although they were not included in the final report of ORNL. They do not have assigned numbers since no ORNL number was assigned to them in their final report. Also, a number of replies were added to the end of the NBS evaluation section, since they were received from ORNL only after the main body of the survey evaluation had been completed.

APPENDIX A

Literature Survey on Sampling, Sample Handling and Storage

APPENDIX A

Literature Survey on Sampling, Sample Handling, and Storage for The National Environmental Specimen Bank

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Approximately 660 of the returned survey forms sent out by ORNL for the NESB have been studied and evaluated at least two times with regard to the suitability of the specimen collection for sample integrity after long term storage. Few of the survey respondents answered the questions in sufficient detail to give a definitive answer, but most of the collections appear to be of use largely for taxonomical purposes.

In order to develop a consistent and comprehensive set or guidelines for the evaluation of this survey, a large portion of the recent literature concerning sampling and storage of environmental specimens has been examined. This has been done both manually and by use of bibliographical retrieval services such as Medline, Chemcon, Biosis, Cain, Defense Documentation Center and others. Also, the advice and opinion of workers in various aspects of the field has been obtained. A summary of the results of this survey is found below, separated into the various areas of concern.

Trace Elements

For trace elements there is an abundance of reports on sampling and storage (which should also apply to radionuclides);

however, many of them are contradictory and should be further resolved by careful experimental work. Much of the published analytical data apparently is inaccurate because of such problems as gross sampling contamination or subsequent procedural contamination and failure to make proper blank corrections. Richards states that some oceanographers have permitted the perpetuation of the notion that the concentrations of trace elements in the sea are well known, when, in fact, they are not (1).

Patterson and Settle (2) report that the great mass of published lead data in plants, animal tissues and water is in error because of gross positive errors, and that the relatively large blanks usually present with lead concentrations less than a few μg/g often makes the value obtained meaningless. Many trace element analysts, particularly in the field of oceanography and marine biology, believe that much of the previously published work is unreliable as a result of sample contamination. The values being reported are progressively lower as techniques are being improved. Hume reports that if a synthetic sea water were prepared from the purest reagent chemicals available, it would still be higher in many trace elements than natural sea water (3). Whitnack also has evidence to show that the reagents used are more contaminated than sea water (4). Speecke, et al. state that many chances exist for a biological material to be contaminated before it is analyzed (5); but few authors give the impression of the awareness of this and meaningless phrases are used, such as "metal-free" containers, "chemically clean" glass, etc., with no evidence to back it up. Berman states that one must never assume anything is acceptably free from trace metal contaminants until it has been tested (6).

It is felt that the materials, techniques, and expertise exist to provide viable long-term stored samples for most trace elements in most matrices; however, few in the field are using these techniques, partially because as Boutwell says, "...validity is an expensive commodity" (7).

The first consideration is the choice of the container and sampler composition and the method of cleaning and sampling. Murphy, Robertson, Thiers, Patterson, Tölg, and many others show results which indicate that rubber, neoprene, vycor, polyvinyl chloride, polystyrene, glass, polypropylene, linear polyethylene, platinum, etc., will introduce contamination in sampling and storage (8, 9, 10, 10a, 2, 11). Patterson recommends first, FEP Teflon, then ultrapure quartz, conventional polyethylene or TFE Teflon containers. All cleaning and sample treatment should be done in laminar flow hoods or a clean room. He recommends cleaning with hot concentrated HNO_3 for three days, rinsing with high purity distilled water, followed by hot dilute 0.05 percent HNO_3 (both water and acid, prepared as described by Kuehner, et al. (12)) for one day, rinsing and heating with 0.05 percent HNO_3 five days, rinsing, then storing filled with 0.05 percent HNO_3, wrapped in cleaned polyethylene until ready for use. (The two dilute HNO_3 leachings have not been found necessary by some other workers). When ready for use, the containers can be thoroughly rinsed and dried in laminar flow hoods. Cleaned plastic gloves are worn in all phases of cleaning, sampling, etc. (2). Berman found that even after thorough cleaning and scrubbing of fingers, 0.1 to 0.4 μg of lead could still be washed off. Washings from a chain smoker give results of 0.3-4 μg of lead (6).

Karin, et al. report a three-day leach of polyethylene in either 8 or 16 M HNO_3 was necessary to remove certain trace metal contaminants (13).

Sampling implements Patterson recommends are either Teflon or Teflon-encased, except for frozen tissue sampling where a series of HNO_3-acid cleaned stainless steel blades are used with very elaborate sampling procedures to remove areas contaminated by the blade (2). All of these type operations should be done in laminar flow hoods or clean room conditions.

Deionized water which has not been followed by distillation should not be used in any stages of the cleaning, sampling, or analysis as organic breakdown products may be formed, complexing some of the trace elements (8).

Numerous types of water samplers have been devised. Segar, et al. have described water sampling with Niskin bottles with rubber coated springs, Teflon coated coil springs and a new design Niskin bottle without internal closures. All gave trace metal contamination except the latter (14). Since Teflon is rather porous, apparently some metal diffusion through the spring coating must have occurred.

Harrison, et al. have designed a Teflon cylindrical sampler with a mechanism for opening both ends after submersion to the desired depth to avoid contamination from the water surface (15). It is attached to a metal frame and rudder which have a baked-on Teflon coating. It is also adapted so that the sample may be filtered immediately in an attached container holding a precleaned polyethylene bag in which the sample can be immediately sealed and frozen in liquid nitrogen. If the water sample is to be filtered, Morrison and Pierce, and many others suggest that it is best to do it immediately (16). The filter must be thoroughly precleaned, rinsed, and stored in cleaned polyethylene bags.

The sample chamber used by Patterson (2) consists of accordion pleated Teflon tubing, the entry port being protected by a bath of ultra pure water (prepared as already mentioned). At the deep water sampling depth desired, a trigger retracts the water bath shroud and ruptures the end diaphragm which contains the pure water. The water sampler is lowered continuously so that it is continually dropping into virgin water. After a short interval to allow the bath water to be washed away, a second trigger expands the sample accordion bag and seals the entry port.

The storage of aqueous samples presents an even greater challenge as most samples start undergoing changes the instant they are sampled. Pre-aging the sampler and sample container with some of the same sample would be desirable whenever possible. Amore states that losses as high as 50 percent can occur during one hour of storage (17). An EPA manual on methods of water analysis says that complete and unequivocal preservation of samples is a practical impossibility, that complete stability can never be obtained, and that preservation techniques only retard the chemical and biological changes that continue after the sample is taken (18). The methods of preservation are intended to retard biological action, retard hydrolysis of chemical compounds and reduce the volatility of the components. Their recommended methods include pH control, chemical addition, refrigeration, and freezing.

Although there is much in the literature on relatively short term storage of different aqueous (non-frozen) solutions under varying conditions, there are many disagreements and most of the results do not look favorable for long term storage. A USGS manual for water analysis says that the shorter the time that elapses between the collection of a sample and its analysis, the more reliable will be the results (19).

Pettis and Phillip give an excellent review of the literature on trace metal analysis in sea water. They discuss sampling and cleaning procedures, sample pretreatment, standard reference materials, and analytical method of determination of the trace metals (19a).

Robertson found that sea water adjusted to pH 8 stored in polyethylene resulted in a 90 percent indium loss in 20 days and a 90 percent loss of iron in 55 days (20). Hummel found that 75 percent of the gold in sea water was lost after three weeks in polyethylene (21). King, et al. found that less than 3 percent of the cadmium was lost to polyethylene at pH's of 3 to 10 after two weeks storage (22). West, et al. (23) found more silver adsorption on glass at pH 4 than at pH 7, a significant decrease occurring at pH 7, and a rise at pH 8, and they also state that pyrex showed more erratic adsorption patterns than polyethylene or silicone-coated containers. Struempler (24) states that acidification with nitric acid to pH 2 prevents adsorption of silver, lead, cadmium, and zinc on pyrex, and silver on polyethylene. Dyck (25) reports lack of confirmation with the work of West, et al. with silver, and states there is a direct increase in silver adsorbed on glass with increase in pH. He also states that for periods over several months, plastic adsorbed more silver than glass. Lai and Weiss (26) found no silver loss when sea water was stored in polyethylene and acidified to a pH of 3.5 to 4.0 with acetic acid. King, et al. (22) found losses as high as 75 percent for cadmium when stored in glass at pH 9. Eichholz, et al. (27) compared adsorption of a number of elements on pyrex and polyethylene and state that pyrex is preferable to polyethylene; however, they found less contamination for cesium, ruthenium, and zirconium when using polyethylene. Smith (28) studied stability of a number of ions including cadmium, antimony, tin, and lithium, and states that of the elements studied only lithium was stable over the pH range of one to 11. He therefore recommends acidification to pH one. In another report (29), he states that freezing the liquid samples as soon as they are collected is an excellent solution for the adorption problem. The losses may be due to adsorption or also to precipitation or particulate formation. Salman also states that freezing can be used to preserve the water samples at the collection site (29a).

Rattonetti examined the stability of a large number of trace metals in a variety of water matrices stored in polyethylene at differing pH's and concluded that loss to container walls is insignificant compared to losses to the particles present in natural aqueous systems (30).

Moody, et al. have prepared two mercury-in-water Standard Reference Materials at the 1 ppm and 1 ppb level which have been stable for over a year in both glass and polyethylene (31). This was achieved by the addition of 1 μg/g and 10 ng/g of Au^{+3}, respectively, and 0.5 N nitric acid. Lo and Wai verified this for shorter term storage with 0.2 μg/g Au^{+3} and nitric acid at pH 0.5 (32), but were unable to confirm Feldman's stabilization with potassium dichromate (33) or the report of Issaq and Zielinski with hydrogen peroxide (34). Avotins and Jenne state that the biological effects have been overlooked in many of the mercury in water investigations, and that as a result of the unpredictable growth of bacterial and yeast populations, with production of metabolites, mercury may either vaporize, bind to the walls of the vessel or be stabilized in solution (35). Huey, et al. have reported that cadmium can be volatilized from its inorganic salts by a microorganism through conversion to a volatile organic compound (36). The volatilization is stimulated by vitamin B_{12}. Methylmercury formation by this organism is also stimulated by B_{12}, the absence of which causes the organism to form metallic mercury from inorganic mercuric salts. In samples where this type of reaction occurs, freeze-drying is not advisable as a method of sample preservation. For long term preservation for trace-element analysis, freezing and possibly freeze-drying for most elements (probably followed by radiosterilization), would seem to be the most likely alternatives. Morrison and Pierce state that freezing may be a suitable preservation technique for trace elements but has not been adequately tested to date (16). Allen, et al. recommend immediate freezing at -10 to -15°C to prevent microbiological changes in soluble mineral and silica concentrations (37); however, for long term storage, immediate freezing in liquid nitrogen as recommended by Harrison, et al. (15) and others (29), followed by freeze-drying for most trace elements (and radiosterilization) or storage at -70° to -80°C would seem preferable. Low temperature (oxygen plasma) ashing and dry ashing are also possibilities in some cases.

Harrison, et al. (38) and Filby, et al. (38a), have reported that radioisotope studies of the volatile elements such as arsenic, antimony, selenium, bromide, and mercury have shown no significant losses in water samples which have been freeze-dried.

Heron studied the determination of phosphate in lake water before and after freezing (39). It was expected that rapid freezing would cause cell rupture resulting in higher phosphate values, but this did not occur. Varying phosphate values were found whenever growth of bacteria was occurring. This was prevented by pre-cleaning the sample bottle with a solution which is 5 percent in iodine and 8 percent in potassium iodide and immediate freezing of the water sample.

Philbert found that in freezing lake water samples soluble reactive silica and phosphorus concentrations were decreased in the thawed samples (40). A decrease in total alkalinity and dissolved chloride was also observed. Inconsistent changes were observed for ammonia and the various forms of nitrogen.

A USGS manual on methods of water sampling recommends that water samples for inorganic analysis should not be frozen (19); however, there is sufficient reason to expect that if the process is performed properly, freezing is acceptable for most trace elements. The samples should be subsampled before freezing, because once thawed, they should not be refrozen. The entire subsample should then be taken for analysis. They should be frozen in one of the container materials already discussed, under a gas such as nitrogen or argon to prevent sample oxidation. They should be sealed in at least 2 and possibly 3 [as Patterson recommends (2)] series of plastic bags. Since most plastics are porous (41), they should then be placed in a tightly sealed glass container containing nitrogen or argon with minimum void space, followed by storage in the dark at -70°C. Bothner and Robertson (42) have reported that sea water samples stored in polyethylene containers have picked up mercury from being stored in a room contaminated with metallic mercury. This has been verified in a closed chamber with pools of clean mercury surrounding a mercury solution in Teflon and polyethylene bottles, but has not as yet been verified in an ordinary laboratory atmosphere where spilled mercury would probably be covered with dust, thus effectively diminishing its vapor pressure (43).

When the frozen water sample is used, the whole sample should be used because of possible selective ion incorporation in the ice (44). The walls of the inner container will probably have to be washed with acid to remove any hydrolyzed or adsorbed material.

The possibility of losing organic or inorganic mercury during freeze-drying of biological materials was investigated by LaFleur, as Pillay, et al. had published data indicating losses (45). LaFleur found no losses for inorganic or naturally bound methyl- or phenylmercury in tissue and blood; however, for aqueous solutions, losses of up to 90 percent could occur for organic and up to 10 percent for metallic mercury (46).

Biological-Tissue and Fluids

For tissue and biological fluid sampling, the sampling device presents considerably more difficulties. The use of a laser beam for cutting bone by Hislop and Parker (47) offers many interesting possibilities. Some loss of trace elements on the surface may occur but would be negligible with regard to the entire sample. A quartz or glass knife should also be suitable for many kinds of tissue. Montgomery, et al. used a glass knife to cut fish in small pieces for the determination of iron, zinc, lead, cadmium, copper, and manganese (48). A problem here is the chipping of the cutting edge; weighing the knife before and after use may indicate if this difficulty arises.

Most workers use stainless steel implements. However, this is frought with dangers of contamination for many trace elements even when done as carefully as described by Patterson earlier (2). Versieck, et al. report on the contamination introduced during needle biopsies of liver (49). They state that steel surgical blades lead to somewhat less contamination, but are not suitable for some trace elements such as chromium and nickel. The needle biopsies resulted in contaminations of as much as 1.7 ppm of copper, 0.64 ppm of manganese, 11 ppm of chromium, 12 ppm of nickel, 20 ppm of iron, 0.24 ppm of cobalt, 0.012 ppm of silver, 0.46 ppm of tin, 0.069 ppm of antimony and 1.2 ppm of tantalum. Speecke, et al. have reported on the sampling and storage of biological materials for contamination by chromium, manganese, nickel and cobalt by drawing 4 series of 20 ml portions of blood using disposable needles (5). For manganese, the first 20 ml showed contamination of 0.2 ppb, the fourth, 0.02 ppb; for chromium, the first 85 ppb, the fourth 15 ppb; for nickel, the first 71 ppb, the fourth 12 ppb; for cobalt the first 0.9 ppb, and the fourth 0.2 ppb. They also compared contamination introduced in another series of liver samples using Meneghini biopsy needles and surgical blades. For the needles, they found contaminations of as much as 600 ppb of manganese, 9000 ppb of chromium, 12,000 ppb of nickel and 230 ppb of cobalt; for the surgical blades, 3 ppb of manganese, 15 ppb of chromium, 60 ppb of nickel, and 1 ppb of cobalt. They discuss the possibility of using laser beams on hard and soft tissues and platinum-rhodium alloy needles; however, it is preferable that the platinum needles have Kel-F hubs to avoid contamination. For storage, Speecke, et al. recommend immediate, rapid freeze-drying, but point out that some volatile materials may be lost. All the work should be done in a clean-room type laboratory with no exposed metal parts which might cause contamination.

Fisher, et al. (50) also reported that serum samples should be quickly frozen with as little air space as possible (as described earlier, the air should be displaced with nitrogen or argon). They also checked storage at room temperature, 8°C and -15°C. No differences for calcium, magnesium, copper, zinc, sodium, and potassium were noticed up to 16 days. Essentially no changes were observed in the refrigerated and frozen samples up to 50 days, but changes did occur in the samples stored at room temperature. Longer term storage would probably also result in changes in the refrigerated samples. Some microorganisms can grow in a temperature as low as -6°C (51).

In a discussion of sampling for clinical chemistry, Ibbott recommends separating the serum from the clot as soon as possible to avoid contamination from cell leakage (52). He also states that the majority of the serum components are stable indefinitely in dry ice (about -70°C), and that the samples exhibit concentration gradients due to freezing and must be thoroughly mixed after thawing. Omang and Vellar also point out the concentration gradients obtained after freezing and thawing serum, sweat, and urine. They found top-bottom differences of thawed samples of up to one hundred (53).

Museum Specimens

The futility of trace element analysis of museum type specimens stored in preservatives has been pointed out by a number of authors. Bowen and Sutton in analysis of marine sponges found that nickel accumulation in the preservative occurs quite frequently in these types of samples (54). Gibbs, et al. investigated the effects of time and preservatives in museum fish specimens and found no evidence to support the theory that preserved museum specimens can provide reliable estimates of heavy metal concentrations (55). They tested many types of preservatives such as ethanol, formalin, isopropyl alcohol, etc., and found interaction with the specimens in all cases. These solvents may either leach trace metals from the specimen or contaminate the specimens by heavy metals contained in the preservatives or container. In many cases, metal identification tags are placed in with the preservative, which contribute even further to the contamination of the sample. In some instances, the trace metal content increased over the years and in other cases, decreased from leaching even in a short period of time, such as a month.

A possible exception for the museum type specimens are those which have been stored in relatively clean, dry areas not subject to leaching or contamination. Cockburn, et al. (56) describe the autopsy of an Egyptian mummy, Pum II, which included the analysis of some trace elements in bone by R. G. Smith (57). He found 0.6 ppm of lead and 0.43 ppm of mercury. The lead content of modern bone averages 6.55 to 18 ppm (58). Assuming no leaching has occurred, it would appear, on the basis of limited sampling, that man's environment has contributed considerably to his lead body burden. The mercury level, however, is relatively unchanged, that of modern bone averaging about 0.45 ppm (59).

Crustal and Botanical Materials

The sampling and storage of soils, rocks, minerals, sediments, and plants does not present quite as many problems as the matrices already discussed, but more precautions should be taken then are generally observed. Morrison and Pierce (16) state that the use of a spade to sample soil is preferable to a soil auger and that dry samples can be collected in a clean cloth bag, but this procedure would certainly lead to contamination for some trace metals. Clean Teflon encased tools as recommended by Patterson and Settle (2) should be used except for most plants which can be picked with clean plastic gloves. It appears that soils and sediments with any significant water content (especially sediment samples) should be frozen in such a way that no water loss can occur, and stored as recommended for water samples.

There are many papers in the literature which indicate that soils and sediments undergo changes in structure and chemical state even when dried at room temperature. This should not have a great effect on the total trace element content in most cases, but if speciation, organic extractable trace elements, etc., are of interest, any form of drying may invalidate the sample. Attoe (60) reports that potassium may be fixed in a nonexchangeable form when a potassium-fertilized soil is air-dried. Air drying of unfertilized soils resulted in a 4-90 percent increase in exchangeable potassium when the soils are remoistened. Schalsha, et al. (61) state that air drying produces significant irreversible changes in volcanic ash soils. For instance, soil samples with a clay-type texture in the field, change to a sandy texture with air drying. Air drying also reportedly markedly affects cation exchange capacity, soluble phosphorus and iron, and decreases the pH slightly. Air drying decreased the total exchangeable and acid soluble iron, but increased the chelatable iron extracted by salicylate. The mechanical and chemical analysis of volcanic ash soils more accurately indicate field conditions when samples contain the original moisture at field capacity.

Barrow (62) found when soils were dried, inorganic sulfate immediately increased (probably as a result of decomposing organic sulfates in the soil becoming immediately available to the plants). Even when two different soils are dried at the same temperature, the relative availability of the sulfur may be no indication of the relative availability when they were fresh.

Harpstead and Brage (63) reported that the drying and storage of soils leads to a pronounced increase in their nitrifying ability because of the changes in the relative numbers of various microorganisms in the soil. Birch found that when remoistening dried soil, the first rapid decomposition slows down and this pattern is repeated during successive dryings and wettings (64). The magnitude of the decomposition depends on the amount of carbon in the soil and on the drying conditions, air drying being less effective than oven drying. Vacuum drying and oven drying gave the same moisture loss results, but oven drying gave a much greater amount of decomposition on rewetting.

Birch (65,66) also states that the longer a soil is kept air dried, the greater the amount of water-soluble and organic material that can be extracted, even though it does not lose additional moisture, and also the greater the amounts of carbon and nitrogen are mineralized on remoistening. He also finds greater effects if the soil is dried at 100°C, possibly because of increased gel porosity and surface area, and possibly because of increased microbiological activity occurring during the remoistening of the dried soil.

Nevo and Hagin (67) state that the changes occurring after [illegible] months of air drying storage was independent of microorganisms. The major factor is the change in the physical structure of the organic fraction. They found a good correlation between the nitrification rate and the surface area of particles of an organic soil.

Hesse (68) states that oven drying a soil, despite its reproducibility, should not be recommended, because of the profound changes caused. Also he says that storing a soil in a moist state has the effect of incubating it, but without temperature or moisture control, resulting in a build-up of carbon dioxide at the expense of oxygen. As such treatment results in many complicated reactions, it is most undesirable to keep a soil in a moist state for any length of time for the purpose of analysis. He also reports on investigations of J. M. Coleman (private communication) that moist soil samples stored in plastic containers can result in fundamental changes in clay minerals. It is thought that an organic complex passes from plastic into the clay mineral. All these references seem to point out that drying or freeze-drying may result in irreversible changes which will affect also the complexation state of the trace metals and that freezing at -70°C to -80°C as recommended earlier should be the method of storage.

Plant sampling can probably be done by picking with plastic gloves and storing by freezing in containers as already mentioned, with care to avoid moisture loss.

Arkeley, et al. (69) state that trace elements such as carried by peat dust deposited on plants are easily washed off (high purity distilled water should be used) but those deposited by sprays are not, because of partial absorption in the leaf. Lagerwerff (70) found increases in absorption of cadmium, zinc, and lead on leaf surfaces probably enhanced by drying.

Work by Koeppe and Miller (71) showed a much higher uptake of lead by maize roots than in the stems or leaves.

Washing with distilled water removed little lead, but washing with EDTA solution removed about 90 percent of the lead, indicating the lead is largely retained on the exterior surface of the roots.

For sampling of air particulates, Patterson and Settle (2) recommend cleaning Millipore or Nucleopore filters by soaking in cold 6N HCl two days, rinsing on a cleaned polyethylene Buchner funnel with high purity distilled water, soaking two days at 55°C with 1 percent NH_4F (prepared by neutralizing high purity NH_4OH with high purity HF) followed by rinsing with high purity water. These operations, of course, are carried out in a clean room atmosphere or laminar flow hoods. The filters are then stored in cleaned polyethylene bags or boxes. The lead blank on these filters was found to be less than 1 ng/47 mm filter.

Organics and Pesticides

With the exception of the use of plastic gloves for sampling to avoid contamination from body oils (72), storage containers and implements for trace organics and pesticides must definitely not be plastic of any kind with the possible exception of Teflon, as plastic is known to both introduce interferences and sorb pesticides (and organics) (73,73a). Many examples are given in the literature which show that additives such as plasticizers, organometallic or other stabilizer antioxidants, colorants or other components are leached from the plastic and contaminate the sample (74).

Some polyvinyl chloride tubings were shown to release a constituent to some systems containing alcohol, propylene glycol or polyethylene glycols (75). Gibbs found that asbestos fiber was highly contaminated by 3,3'-5, 5'-tetratertiary butyl diphenoquinone after storage in polyethylene bags (76). Lipids in soil samples stored in standard plastic lined canvas bags were found to take up phthalate esters and other contaminants from the plastic (77).

Most workers in the field recommend storage in glass containers with Teflon or aluminum foil lined caps (72,73,73a,78); however, it has been reported that Teflon sheet and aluminum foil have been found to contain up to 400 and 300 ppb, respectively, of di-2 ethylbutyl phthalate (79,80).

Hertz, et al. (81) recommended cleaning the glassware with soap and water, then in concentrated H_2SO_4 at 100°C for 30 min and finally rinsing with specially prepared distilled water made by redistilling the house distilled water over $KMnO_4$-KOH. The distillate is then passed through an XAD-2 column, and the water is redistilled to remove any particulates from the XAD-2 resin. Finally, the bottles are then rinsed with methanol and triple-distilled pentane, and filled with nitrogen from a liquid nitrogen source and sealed.

Others recommend wrapping the cleaned glassware in aluminum foil and heating at 625°C for four hours (82). The maintenance of high quality distilled water can be a problem as some microorganisms can grow rapidly in distilled water and some chemical reagents (82,83,84). It is reported by Hamilton and Myoda (82) that the amino acids, proteins and bacteria often found in some laboratory reagent solutions and distilled water, are probably airborne and enter the outlet of the stills or deionizing systems where they multiply. A method of catalytic pyrodistillation has been reported to remove organic impurities not removed by ordinary or oxidative distillation because of the steam volatility of the compounds or their derivatives (85).

It has been recommended in sampling that "an analyst or person directly concerned with the particular study should collect the samples. Inexperienced personnel should never be allowed to collect the samples unless they are very closely supervised" (78). This, of course, is true to all types of environmental sampling.

When sampling marine organisms and sediments for organics or pesticides, most workers recommend freezing immediately in dry ice or liquid nitrogen (72,81) and final storage at about -70° to -80°C (86) in the dark. Breakdown of pp'-DDT to pp'-TDE in Bengalese finch liver, and breakdown due to other biological processes have been reported at home freezer storage conditions (approximately -14°C) (87,88).

Bristol reported in a study of pesticide residues in potatoes that metabolically incorporated 2,4-D untreated potato samples stored whole at 4°C decreased over a period of 15 months, while those of 2,4-DCP remained constant. Recoveries of 2,4-D from frozen samples were constant over a 15-month period, but those of 2,4-DCP decreased slowly from 88 to 47 percent. The 2,4-DCP samples stored in plastic bags gave a characteristic odor, indicating the losses were due to volatilization from the frozen samples (89).

It is reported by the Federal Working Group on Pest Management that increased knowledge of sample contact with various kinds of synthetic wraps and containers demonstrates the necessity for glass and perhaps aluminum foil to preserve the integrity of wet samples. Immediate freezing and maintenance of the frozen sample until analysis is the best way to protect samples and prevent degradation and loss of pesticide residues (73). (This also is undoubtedly true for all organic components.) They also state that pesticides can migrate to the walls of a container and be adsorbed; hence, even with a glass container, after the sample is poured out, the walls should be rinsed with the solvent in case the extraction is not made in the container itself (this should also apply to any organics).

There is evidence in the literature that samples to be analyzed for organics or pesticides cannot be dried or freeze-dried without danger of some loss. One study showed 79 percent loss of lindane, 37 percent for dieldrin, 57 percent for p,p'-DDT and 31 percent in o,p'-DDT-DDD on whole eggs and 50 percent for lindane in egg yolk when samples were frozen at -23°C, freeze-dried for 24 hr, and transferred and stored in sealed glass vials at 4°C, so that there was no volatility loss in storage (90).

Morris found that preservation of zooplankton in formalin and methanol resulted in hydrolysis of the animals' lipid and degradation of polyunsaturated fatty acids (90a). He found that the samples were stable up to nine months if stored deep frozen under nitrogen.

Smith reports that changes in nonstructural carbohydrate concentrations occur during the storage of either heat or freeze-dried tissues and concluded that no preservation method is as good as the immediate analysis of fresh tissue; however, he did not investigate straight freezing (91). Other workers found losses in higher fatty acids under either oven or freeze-drying conditions after storage for nine months (92).

Dessicants for tissue preservation are used by some workers who are unable to freeze their samples. The samples are chilled, homogenized, and blended with a combination of sodium sulfate and powdered silica. It is stated that the resulting mixture is a dry, free-flowing powder wherein the pesticide residues are stable for 15 days or more at room temperature (73).

Microbiologicals

Microbiologicals or cellular organisms consist of many different types such as algae, protozoa, fungi (molds or yeasts), bacteria, submicroscopic viruses and other (microscopic nematodes, some insects and some crustaceans), necessitating a wide variety of different sampling and storage conditions. Most preservation has been done through culturing and subculturing. With care, these have been maintained for 5-8 years (93). The sampling implements and containers should obviously be sterile and glass is preferred to plastic, since bacteria tends to grow on plastic surfaces. Since all known life forms require water in the liquid state, this automatically limits the temperature range for microorganisms. Both bacteria and viruses can be freeze-dried to maintain culture collections and to preserve them for use as vaccines. Insects have been supercooled to -30°C without apparent damage; however, they die if ice crystals are formed. Mouse embryos have survived deep freezing to -196°C. Freezing is accompanied by the removal of water, so the cell is subject to damage by both freezing and drying. Mechanical injury is caused by ice crystals and the removal of the water causes an increase in dissolved substances. Biochemically debilitated cells may show a reduction or complete loss of some enzymes, and ice-damaged cells may have leaky membranes or an altered structure. The damage from freezing, drying, and thawing can range from essentially none to 100 percent, depending on the specific organism and conditions. Spores are resistant to both cold and drying. Rapid freezing is reported to be usually better with bacteria, whereas slow freezing is better for animal cell survival. It has been stated that rapid thawing gives better survival than slow thawing (51). Fleischer and Kervina report in studies on long-term preservation of liver for subcellular fractionation that rapid freezing and thawing minimizes the time in which degradation can occur (94). Repeated freezing and thawing is more harmful. Freeze-dried bacteria are better kept at refrigerator temperature than at room temperature (51).

McPeak and Camp (94a) have reported on work of Valeri, et al. (95), Meryman and Hornblower (96), and Gibson, et al. (97). Their studies on storage of red blood cells show that if the samples are stored at a higher temperature than -60°C, they deteriorate within a few weeks. If glycerol is used as a cryoprotective agent and the cells are frozen rapidly in liquid nitrogen and stored at -80°C, the cells are reported to be stable for over 10 years. Fluctuations in storage temperatures of not more than 10°C above or below -80°C are reported to have no adverse effect. Farrant, et al. (98) report that improved recovery of frozen cells can be obtained by interrupting rapid cooling with a timed exposure to a single subzero temperature.

There is a vast amount of additional information in the literature on the subjects of sampling, handling, and storage for microbiologicals, blood, and other biological samples. Since there are so many different types of species and the related optimum handling appropriate to each specie, it is difficult to summarize; however, a number of additional references are given below (Bibliography Addendum A - Microbiologicals and Addendum B-Blood) to indicate the type of problems that are encountered as well as some additional references concerning other subjects discussed above (Bibliography Addendum C - Biological Sample Preparation and Storage).

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APPENDIX B

NESB Survey Form.

NATIONAL ENVIRONMENTAL SPECIMEN BANK SURVEY

1. Person to Contact: ______________________________

   Address: ______________________________

   Telephone Number: ______________________________

2. Name and Location of Specimen Collection: ______________________________

   ____

3. Sample Classification (Check as many as are applicable)

   Data Collection Only   Data and Specimens   Specimen Only

- Tissue
- Microorganisms
  - Viruses
  - Bacteria
- Plants
  - Algae
  - Fungi
  - Lichens
  - Embryophyta
  - Bryophyta
  - Tracheophyta
  - Pteridophyta
  - Spermatophyta
  - Wild
  - Domestic
  - Aquatic
  - Marine
  - Terrestrial
- Animals
  - Aquatic
  - Marine
  - Terrestrial
- Animals (Cont'd)
  - Domestic
  - Wild
  - Vertebrate ________
  - Invertebrate ______
- Human
  - Diseased
  - Normal
  - Bone
  - Organs
  - Hair
  - Teeth
- Crustal Materials
  - Soils
  - Bedrock
  - Organic Detritus
  - Bottom Sediments
    - Lakes
    - Rivers or Streams
    - Estuarine
    - Marine
- Water
  - Freshwater Lakes
    - Eutrophic
    - Oligotrophic
    - Dystrophic
  - Rivers or Streams
  - Groundwater
  - Brackish Water
  - Seawater
    - Estuarine
    - Coastal
    - Marine
- Air
  - Gaseous
  - Particulates
    - Physical
    - Chemical
    - Biological
  - Precipitation

4. Scientific Name (if single species collection): ____________________

   ____

   4.1 Reference Source: ______________________________

5. Common Name (if single species collection): ____________________

____

6. Intent or Rationale for Collection: ____________________

____

7. Sampling Location: ____________________

City: ____________________

County: ____________________

State: ____________________

Other: ____________________

8. Presampling History: ____________________

____

____

9. Number of Samples: ____________________

10. Dates of Sampling (Inclusive dates, range of time): ____________________

____

11. Component in Specimens of Interest: ____________________

Trace Elements
Pesticides
Microbiological
Minerological
Organics
Radionuclide(s)
Medical
Other

12. Sample Composition: ____________________

____

13. Method Used to Take Sample: ____________________

____

____

14. Temporary Storage Conditions:

14.1 Container Composition: ____________________

____

14.2 Procedure Used: ____________________

____

14.3 Container Contact Time Before Permanent Storage: ____________________

____

15. Sample Preparation (Check One)

Intact Storage
Fractionated
Homogenization

15.1 Freezing (degrees C): ____________________

15.2 Low Temperature Ashing (degrees C): ____________________

15.3 High Temperature Ashing (degrees C): ____________________

15.4 Chemical Stabilization

Chemical Used: ______________________________

Concentration: ______________________________

Purity: ______________________________

15.5 Radiation Source: ______________________________

Dose (Rads): ______________________________

____

15.6 Fumigation (Chemical): ______________________________

Amount: ______________________________

15.7 Lyophilization: ______________________________

15.8 Drying: ______________________________

15.9 Other (Specify): ______________________________

16. Permanent Storage Conditions (if applicable):

16.1 Container Composition: ______________________________

____

16.2 Temperature Control: ______________________________

16.3 Humidity Control: ______________________________

16.4 Lighting Exposure: ______________________________

16.5 Composition of Storage Media (e.g. air, inert gas, formaldhyde, etc.): ______________________________

____

____

17. Shelf Life of Sample (if known): ______________________________

____

18. Availability to Outside Researchers (Samples and/or Data): ________

____

____

19. Additional Information: ______________________________

____

____

____

APPENDIX C

Evaluation Criteria for Existing Environmental Specimen Collections

Evaluation Criteria for Existing Environmental Specimen Collections

1. SAMPLE CLASSIFICATION:
    - 1.1 Tissue
        - A. Plant
        - B. Animal
            - 1. aquatic
            - 2. lower phyla
            - 3. vertebrates
        - C. Human
    - 1.2 Crustal Materials
        - A. Soils
        - B. Rocks and Minerals
        - C. Sediments
    - 1.3 Water
        - A. Fresh
        - B. Estuarine
        - C. Marine
    - 1.4 Air
        - A. Gaseous
        - B. Particulates
2. SAMPLING RATIONALE
    - 2.1 Component of Interest
        - A. Trace Element
        - B. Trace Organic
        - C. Trace Pesticide
        - D. Medical
            - 1. normal
            - 2. diseased
        - E. Microbiological
        - F. Other (specify)
    - 2.2 Other Reasons For Banking
3. SAMPLING METHODOLOGY
    - 3.1 Sampling Implement
        - A. Composition
        - B. Procedure Used

3.2 Temporary Storage
    - A. Container Composition
    - B. Procedure Used
    - C. Container Contact Time (before permanent storage)

3.3 Sample Preservation Procedure
    - A. Freezing (temperature)
    - B. Lyophilization
    - C. Low-temperature ashing
    - D. High-temperature ashing (temperature)
    - E. Chemical Stabilization
        - 1. chemical used (purity)
        - 2. concentration
    - F. Other (specify)
    - G. None Used

4. SAMPLE STORAGE

4.1 Container Composition

4.2 Bank Storage Conditions
    - A. Temperature Control
    - B. Humidity Control
    - C. Composition Of Storage Media (e.g., air, inert gas, formaldehyde, etc.)

4.3 Shelf Life (if known)

4.4 Storage Time [quantity (%) vs. time (y)]

4.5 Sample Documentation
    - A. Date Of Sampling
    - B. Location Of Sampling
    - C. Pre-sampling History
    - D. Other

APPENDIX D

Evaluation of Individual Survey Replies.

(Note: For rating guide, see Section 6 in text of this report.)

< 1 >	G. C. McLeod
New England Aquarium; Central Wharf
- 1 -	Boston, MA 02110
(607) 742-8830

Component	Sampling	Storage	Overall
Trace Element	I	CI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	CI	I
Microbiological	E	E	E

Comments:

* * * * *

< 2 >	Richard L. Lapan, Jr.
National Marine Water Quality Lab.; S. Ferry Rd.
- 3 -	Narragansett, RI 02882
(401) 789-0825

Component	Sampling	Storage	Overall
Trace Element	CI	C-DI	C-DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	C-DI	C-DI
Microbiological	E	E	E

Comments:

* * * * *

< 3 >	R. R. Ruch
Illinois State Geological Survey; Natural
-34-	Resources Bldg.; Urbana, IL 61801
(217) 344-1481

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	CI	CI
Pesticides	CI	CI	CI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

< 4 > Kneeland McNulty; John B. Pearce
NOAA/NMFS Middle Atlantic Coastal Fisheries
- 2 - Center; Highland, NJ 07732
(201) 872-0200

Component	Sampling	Storage	Overall
Trace Element	CI	C^1-E^2I	C^1-E^2I
Trace Organic	CI	C^1-E^2I	C^1-E^2I
Pesticides	CI	C^1-E^2I	C^1-E^2I
Radionuclides	CI	C^1-E^2I	C^1-E^2I
Microbiological	E	E	E

Comments: ^{1}Sediments; ^{2}biota.

* * * * *

< 5 > Harmon P. Weeks, Jr.
Dept. of Forestry & Conservation; Purdue
- 4 - University; Lafayette, IN 47907
(317) 493-1925

Component	Sampling	Storage	Overall
Trace Element	CI	C^1-E^2I	C^1-E^2I
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	CI	C^1-E^2I	C^1-E^2I
Microbiological	E	E	E

Comments: ^{1}plastic; ^{2}formalin.

* * * * *

< 6 > Jacob Sedlet
OHS Division; Argonne National Lab.; 9700
- 6 - South Cass Ave.; Argonne, IL 60439
(312) 739-7711, ext. 3311

Component	Sampling	Storage	Overall
Trace Element	I	D^1I-E^2	D^1I-E^2
Trace Organic	I	D^1I-E^2	D^1I-E^2
Pesticides	I	D^1I-E^2	D^1I-E^2
Radionuclides	I	C^1I	C^1I
Microbiological	E	E	E

Comments: ^{1}glass; ^{2}formalin

< 7 > C. C. Gordon
Dept. of Botany; Univ. of Montana
- 5 - Missoula, MT 59801
(406) 243-2671

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

< 8 > Don Tuohy
Nevada State Museum; 600 N. Carson St.;
- 7 - Carson City, NV 89701; (702) 885-4810
885-4811; 885-4812; 885-5393

Component	Sampling	Storage	Overall
Trace Element	C I	D I	D I
Trace Organic	I	D I	D I
Pesticides	I	D I	D I
Radionuclides	C I	D I	D I
Microbiological	E	E	E

Comments: May be of interest because of age.

* * * * *

< 9 > Richard B. Forbes
Portland State Univ.; P.O. Box 731
- 9 - Portland, OR 97207
(503) 229-4200 or 229-3851

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

< 10 >

John S. Bradshaw
Environmental Studies Lab.; Univ. of San Diego
Alcala Park; San Diego, CA 92110
(714) 291-3766

- 8 -

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

< 11 >

Donald B. Porcella
UMC 82; Utah Water Res. Lab.; Utah State
Univ; Logan, UT 84322
(801) 752-4100 ext. 7821

- 11 -

Component	Sampling	Storage	Overall
Trace Element	CI	C^1-DI	C^1-DI
Trace Organic	CI	C^1-DI	C^1-DI
Pesticides	CI	C^1-DI	C^1-DI
Radionuclides	CI	C^1-DI	C^1-DI
Microbiological	I	I	I

Comments: [1]Plastic for trace elements and radionuclides; glass for organic and pesticides.

* * * * *

< 12 >

Loren D. Potter
Biology Dept.; Univ. of New Mexico
Albuquerque, NM 87131
(505) 277-3517

- 13 -

Component	Sampling	Storage	Overall
Trace Element	CI	C^1I	C^1I
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	C^1I	C^1I
Microbiological	E	E	E

Comments: [1]frozen.

< 13>
- 10-

Min Koide
Geological Res. Div.; Scripps Institute of Oceanography; La Jolla, CA 92037
(714) 452-2108

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

< 14>
- 17-

Robert H. Parker
Coastal Ecosystems Management, Inc.; 3600 Hulen St.; Fort Worth, TX 76107
(817) 731-3727

Component	Sampling	Storage	Overall
Trace Element	CI	EI	EI
Trace Organic	CI	EI	EI
Pesticides	CI	EI	EI
Radionuclides	CI	EI	EI
Microbiological	E	E	E

Comments:

* * * * *

< 15>
- 12-

Naman E. Otto
U.S. Bureau of Reclamation; Div. of Gen. Res.; Bldg. 56 Denver Federal Center; Denver CO 80225 (303) 234-4288

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	CI	I	I

Comments:

< 16 > Owen T. Lind
Director, Environmental Studies; Baylor Univ.
- 15 - Waco, TX 76703
(817) 755-3406

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

< 17 > Robert A. Freeman
Dept. of Fishery and Wildlife; Colorado State
- 14 - Univ.; Fort Collins, CO 80521
(303) 491-5089

Component	Sampling	Storage	Overall
Trace Element	I	C -DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	C -DI	I
Microbiological	E	E	E

Comments:

* * * * *

< 18 > W. Harold Reese
Dept. of Biology; Wayland College
- 18 - Plainview, TX 79072
(806) 296-5521, ext. 43; Home (806) 293-2808

Component	Sampling	Storage	Overall
Trace Element	I	D -E[1]I	E[1]I
Trace Organic	I	D -E[1]I	E[1]I
Pesticides	I	D -E[1]I	E[1]I
Radionuclides	I	D-E[1]I	E[1]I
Microbiological	I	I	I

Comments: [1]Liquid preservative.

< 19 > Tom E. Clevenger
Environmental Trace Substances Res. Center;
- 16 - Univ. of Missouri; Rt. 3; Columbia, MO
65201 (314) 445-8596

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

< 20 > Rolf Hartung
Dept. of Environmental & Industrial Health;
- 21 - School of Public Health; Univ. of Michigan;
Ann Arbor, MI 48104, (313) 764-5430

Component	Sampling	Storage	Overall
Trace Element	I	BI	I
Trace Organic	I	EI	EI
Pesticides	I	EI	EI
Radionuclides	I	BI	I
Microbiological	E	E	E

Comments: Good storage for trace elements and radionuclides-insufficient information on sampling.

* * * * *

< 21 > Thomas D. Wright
Dept. of Biological Sciences; Michigan
- 19 - Technological Univ.; Houghton, MI 49931
(906) 487-2028

Component	Sampling	Storage	Overall
Trace Element	I	C-E[1]I	E[1]I
Trace Organic	I	EI	EI
Pesticides	I	EI	EI
Radionuclides	I	C-E[1]I	E[1]I
Microbiological	E	EI	EI

Comments: Discarding samples which could be available.

[1] Formalin or alcohol

< 22 > Henry A. Schroeder, A. P. Nason
Trace Element Lab.; 9 Belmont Ave.;
- 20 - Brattleboro, VT 05301
(802) 254-9637

Component	Sampling	Storage	Overall
Trace Element	I	C-DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	C-DI	I
Microbiological	E	E	E

Comments: May be of interest because of source and type of collection.

* * * * *

< 23 > Donald D. Adams
Dept. of Oceanography; Old Dominion Univ.;
- 22 - Norfolk, VA 23508
(804) 489-6477

Component	Sampling	Storage	Overall
Trace Element	CI	C-E^{1}I	C-E^{1}I
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	CI	C-E^{1}I	C-E^{1}I
Microbiological	E	E	E

Comments: ^{1}acetone.

* * * * *

<24 > F. Lowman; M. J. Canopy; Dept. of Marine
Biology, Radioecology; University of
- 24 - Puerto Rico; College Station; Mayaquez,
PR 00708; (809) 832-1414, ext. 25, 26, 27

Component	Sampling	Storage	Overall
Trace Element	I	C^1-E^{2}I	E^{2}I
Trace Organic	I	D-E$^{1\,2}$	E$^{1\,2}$I
Pesticides	I	D-E$^{1\,2}$	E$^{1\,2}$I
Radionuclides	I	C^1-E^2	E^{2}I
Microbiological	E	E	E

Comments: ^{1}plastic; ^{2}formalin.

John B. Pearce
< 25 > U. S. Dept. of Commerce; NOAA; National
Marine Fisheries Serv., MACFC; Sandy
- 23 - Hook Marine Lab.; Highlands, NJ 07732
(201) 872-0200, ext. 55, 59

Component	Sampling	Storage	Overall
Trace Element	CI	$C^{1}-E^{3}I$	$C^{1}-E^{3}I$
Trace Organic	CI	$C^{2}-E^{13}I$	$C^{2}-E^{13}I$
Pesticides	CI	$C^{2}-E^{13}I$	$C^{2}-E^{13}I$
Radionuclides	CI	$C^{1}-E^{3}I$	$C^{1}-E^{3}I$
Microbiological	CI	I	I

Comments: Of possible interest if T.E. and Rad. are frozen in plastic; Org. and Pest. are frozen in glass without liquid preservative. ^{1}plastic; ^{2}glass; ^{3}liquid preservative

* * * * *

< 26 > B. L. Turner
Herbarium BIO 311; Univ. of Texas
- 25 - Austin, TX 78712
(512) 471-5262

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments: May be of interest because of sample ages.

* * * * *

< 27 > M. A. Thompson
Environmental Sciences; Dow Chemical USA
- 26 - Rocky Flats Div.; P.O. Box 888; Golden,
CO 80401; (303) 494-3311, ext. 4098

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

< 28 >

- 28-

Charles Feddema
Dept. of Agriculture; Rocky Mtn. Forest &
Range Exp. Sta.; 240 W. Prospect; Ft. Collins,
CO 80521; (303) 482-7332

Component	Sampling	Storage	Overall
Trace Element	I	DI	DI
Trace Organic	I	DI	DI
Pesticides	I	DI	DI
Radionuclides	I	DI	DI
Microbiological	I	E	E

Comments:

* * * * *

< 29 >

- 27-

Stanley L. Welsh
Dept. of Botany; Brigham Young Univ.
Provo, UT 84602
(801) 374-1211, ext. 2289

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

< 30 >

- 29-

K. K. Steward
Aquatic Weed Res. Lab.; USDA ARS; P.O.
Box 9087; 3205 S.W. 70th Ave.; Fort
Lauderdale, FL 33314; (305) 583-5541

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	I	I

Comments:

< 31> John H. Martin
Moss Landing Marine Lab.;
- 30- Moss Landing, CA 95039
(408) 633-3304

Component	Sampling	Storage	Overall
Trace Element	CI	C-DI	C-DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	C-DI	C-DI
Microbiological	E	E	E

Comments:

* * * * *

< 32 > Jack S. States
Dept. of Biology; Northern Arizona Univ.
- 31 - Flagstaff, AZ 86001
(602) 523-2857

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	CI	CI	CI

Comments:

* * * * *

< 33 > Donald B. Lawrence
Dept. of Botany; Biological Science Center
- 32 - Univ. of Minnesota; St. Paul, MN 55101
(612) 373-2211; (612) 729-8206

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

< 34 > Robert C. Melchior
Dept. of Geology; Bemidji State College
- 33- Bemidji, MN 56601
(218) 755-2920

Component	Sampling	Storage	Overall
Trace Element	I	DI	DI
Trace Organic	I	D-E[1]I	E[1]I
Pesticides	I	D-E[1]I	E[1]I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments: [1]plastic bags.

* * * * *

< 35 > Joe R. McBride
School of Forestry; Univ. of California
- 36- Berkeley, CA 94720
(415) 642-1249

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

< 36 > Donald B. Lawrence
Dept. of Botany; Univ. of Minnesota
- 35- Biological Science Center, St. Paul, MN
55101 (612) 373-2211

Component	Sampling	Storage	Overall
Trace Element	CI	D-EI	D-EI
Trace Organic	CI	D-EI	D-EI
Pesticides	CI	D-EI	D-EI
Radionuclides	CI	D-EI	D-EI
Microbiological	E	E	E

Comments:

< 37 > D. R. Buhler
Environmental Health Science Ctr.; Oregon
- 37- State Univ.; Corvallis, OR 97331

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

* * * * *

< 38 > Allan H. Chaney
Texas A&I Univ.; Dept. of Biology
- 38- Kingsville, TX 78363
(512) 595-3802

Component	Sampling	Storage	Overall
Trace Element	I	D^1-E^2I	D^1-E^2I
Trace Organic	I	D^1-E^2I	D^1-E^2I
Pesticides	I	D^1-E^2I	D^1-E^2I
Radionuclides	I	D^1-E^2I	D^1-E^2I
Microbiological	E	E	E

Comments: [1]Dry cases; [2]alcohol.

* * * * *

< 39 > Rollin Bauer
Collections of Birds and Mammals; Ecology
- 39- and Systematics; Langmuir Lab.; Cornell Univ.
Ithaca, NY 14850; (607) 256-3819

Component	Sampling	Storage	Overall
Trace Element	DI	D^1-E^2I	D^1-E^2I
Trace Organic	DI	D^1-E^2I	D^1-E^2I
Pesticides	DI	D^1-E^2I	D^1-E^2I
Radionuclides	DI	D^1-E^2I	D^1-E^2I
Microbiological	DI	E	E

Comments: [1]frozen or dried; [2]Liquid preservative.

< 40 > Wayne Wilford
Great Lakes Fisheries Lab.; Box 640
- 40 - Ann Arbor, MI 48107
(313) 663-3331

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	BI	CI
Microbiological	E	E	E

Comments: May be of interest for Trace Elements and Radionuclides.

* * * * *

< 41 > E. Grant Pike
Delta Labs., Inc.; 34 Elton St.
- 42 - Rochester, NY 14607
(716) 217-5333

Component	Sampling	Storage	Overall
Trace Element	I	CI	I
Trace Organic	I	EI	I
Pesticides	I	EI	I
Radionuclides	I	CI	I
Microbiological	E	EI	I

Comments:

* * * * *

< 42 > Philip Butler
NEMP; Gulf Breeze Lab.;
- 41 - Gulf Breeze, FL 32561
(904) 377-5268

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	C-DI	C-DI
Pesticides	CI	C-DI	C-DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

< 43> Kenneth D. Carlander
Dept. of Animal Ecology; Iowa State Univ.
- 43- Ames, IA 50010
(515) 294-5248

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

< 44 > Gilman D. Veith
National Water Quality Lab.; 6201 Congdon
- 44 - Boulevard; Duluth, MN 55804
(218) 727-6526

Component	Sampling	Storage	Overall
Trace Element	C^1-D^{2}I	C^1-D^{2}I	C^1-D^{2}I
Trace Organic	CI	CI	CI
Pesticides	CI	CI	CI
Radionuclides	C^1-D^{2}I	C^1-D^{2}I	C^1-D^{2}I
Microbiological	E	E	E

Comments: ^{1}Aluminum foil; ^{2}glass.

* * * * *

< 45 > W. George Blanton
P.O. Box 3227; Dept. of Biology; Texas
- 46 - Wesleyan College; Fort Worth, TX 76105
(817) 534-0251, ext. 257

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

< 46> Paul P. Yevich
National Marine Water Quality Lab.
- 45- S. Ferry Rd.; Narragansett, RI 02882
(401) 789-1427

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

< 47> J. R. Reed
Dept. of Biology; Virginia Commonwealth
- 47- Univ.; 901 W. Franklin St.; Richmond, VA
23200; (804) 770-7231

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

< 48 > Kenneth M. Garner
USDI; BSFW Div. of Wildlife Services; RM
- 48- 511, 1720 W. End; Nashville, TN 37210
(615) 749-5506

Component	Sampling	Storage	Overall
Trace Element	I	C-DI	I
Trace Organic	I	CI	I
Pesticides	I	CI	I
Radionuclides	I	C-DI	I
Microbiological	E	E	E

Comments: May be of interest for trace elements, organics, pesticides, and radionuclides.

< 49> Albert W. Franzmann
Alaska Dept. of Fish and Game; Kenai
- 49- Moose Res. Center; Box R; Soldatna, AK
99669; (907) 262-4107

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	CI	I
Pesticides	I	CI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

50> David C. Kradel
Dept. of Veterinary Science; Animal Disease
- 50- Bldg.; Pennsylvania State Univ.; Univ. Park,
PA 16801; (814) 237-4987

Component	Sampling	Storage	Overall
Trace Element	I	B-CI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	B-CI	I
Microbiological	E	E	E

Comments: May be of interest for trace elements and radionuclides if good sampling and cleaning techniques were used.

* * * * *

< 51> Arthur Furst
Institute of Chemical Biology; Harney
- 51- Science Center; Univ. of San Francisco
San Francisco, CA 94117; (415) 666-6415

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

< 52> Robert K. Mullen
Mission Res. Corp.; P.O. Drawer 719
- 52- Santa Barbara, CA 93102
(805) 963-8761

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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< 53> C. Blincoe
Dept. of Biochemistry; Univ. of Nevada
- 53- Reno, NV 89507
(702) 784-6031

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	EI	EI
Pesticides	I	EI	EI
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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< 54 > Daniel B. Sass
P.O. Box 851
- 55- Alfred, NY 14802
(607) 871-2203

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

< 55 > Carl Pagel
Water Resources Dept.; 6 Baldwin St.
- 54- Montpelier, VT 05602
(802) 828-3340

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

< 56 > James R. Lamb
Shellfish Sanitation Branch (HFF-417)
- 57- Food & Drug Admn., HEW; 200 C St., SW
Washington, D.C. 20204; (202) 245-1557

Component	Sampling	Storage	Overall
Trace Element	I	CI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	B-CI	I
Microbiological	E	E	E

Comments: May be of interest for trace elements and radionuclides.

* * * * *

< 57 > John M. Frazier
Johns Hopkins Univ.; 615 N. Wolfe St.
- 56- Baltimore, MD 21205
(301) 955-3295

Component	Sampling	Storage	Overall
Trace Element	CI	C-DI	C-DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	C-DI	C-DI
Microbiological	E	E	E

Comments:

< 58> W. F. Fitzgerald
Marine Sciences Institute; Univ. of Conn.
- 58- Avery Point; Groton, CT 06340
(203) 446-1020, ext. 272

Component	Sampling	Storage	Overall
Trace Element	CI	BI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	BI	CI
Microbiological	E	E	E

Comments: May be of interest for trace elements and radionuclides.

* * * * *

< 59> Dr. Liu
Stanford Res. Institute; 333 Ravenswood
- 59- Rd.; Menlo Park, CA 94025
(415) 326-6200, ext. 2319

Component	Sampling	Storage	Overall
Trace Element	CI	C[1]-E[2]	C[1]-E[2]
Trace Organic	CI	E[1,2]	E[1,2]
Pesticides	CI	E[1,2]	E[1,2]
Radionuclides	CI	C[1]-E[2]	C[1]-E[2]
Microbiological	E	E	E

Comments: [1]plastic; [2]alcohol

* * * * *

< 60> Donald K. Phelps
National Marine Water Quality Lab.; S.
- 60- Ferry Rd.; Narragansett, RI 02882
(401) 789-7731

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

< 64 > John W. Poston
Oak Ridge National Lab.; P.O. Box X
- 63- Oak Ridge, TN 37830
(615) 483-8611, ext. 3-1481

Component	Sampling	Storage	Overall
Trace Element	CI	D^{1}I	D^{1}I
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	BI	D^{1}I	D^{1}I
Microbiological	E	E	E

Comments: [1]Would be B or C if not dried at 300°C, but kept frozen with no buffer.

* * * * *

< 65 > Irving Selikoff
Dept. of Environmental Medicine; Mt. Sinai
- 65- Hospital; 5th Ave. & 100th St.; New York,
NY 10029; (212) 876-1178

Component	Sampling	Storage	Overall
Trace Element	I	C^{1}-E^{2}I	C^{1}-E^{2}I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	C^{1}-E^{2}I	C^{1}-E^{2}I
Microbiological	E	E	E

Comments: [1]frozen in PVC; [2]formalin.

* * * * *

< 66 > I. Harding-Barlow
3717 Lagina Ave.;
- 66- Palo Alto, CA 94306
(415) 493-8146

Component	Sampling	Storage	Overall
Trace Element	I	C-DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	C-DI	I
Microbiological	E	E	E

Comments:

< 61 > Dorald M. Allred
301 WIDB; Brigham Young Univ.
- 61 - Provo, UT 84602
(801) 374-1211, ext. 2007

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	D[1]-E[2]I
Trace Organic	I	D[1]-E[2]I	D[1]-E[2]I
Pesticides	I	D[1]-E[2]I	D[1]-E[2]I
Radionuclides	I	D[1]-E[2]I	D[1]-E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]fixative.

* * * * *

< 62 > Gurdarshan S. Thind
Cardiovascular Section; Washington Univ.
- 62 - Med. Service; VA Hospital; 915 N. Grand
Blvd.; St. Louis, MO 63125; (314) 652-4100

Component	Sampling	Storage	Overall
Trace Element	CI	C[1]-DI	C[1]-DI
Trace Organic	CI	C-E[1]I	C-E[1]I
Pesticides	CI	C-E[1]I	C-E[1]I
Radionuclides	CI	C[1]-DI	C[1]-DI
Microbiological	E	E	E

Comments: [1]plastic.

* * * * *

< 63 > Stanley B. Gross
Kettering Lab.; Univ. of Cincinnati
- 64 - 3223 Eden Ave.; Cincinnati, OH 45219
(513) 872-5780; (513) 872-5748

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments: May be of interest for trace elements and radionuclides; however, stainless or carbon steel sampling instruments were used.

< 67 >

- 67-

A. B. Brill
Div. of Nuclear Medicine and Biomedicine
School of Medicine; Vanderbilt Univ.; Nashville, TN 37232; (615) 322-2394

Component	Sampling	Storage	Overall
Trace Element	C I	C^2-D^1I	C^2-D^1I
Trace Organic	C I	C^1-E^2I	C^1-E^2I
Pesticides	C I	C^1-E^2I	C^1-D^2I
Radionuclides	C I	C^2-D^1I	C^2-D^1I
Microbiological	E	E	E

Comments: ^{1}blood; ^{2}placenta.

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< 68 >

- 69-

Thomas W. Clarkson; Dept. of Radiation Biology and Biophysics; Univ. of Rochester; School of Medicine; 260 Crittenden Blvd.; Rochester, NY 14642; (716) 275-3911

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

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< 69>

- 68-

Cornelius C. Maher, III; A. A. Gordus
Dept. of Chemistry; Univ. of Michigan
Ann Arbor, MI 48104
(313) 763-1260; (313) 764-7369; (313) 763-1095

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments: May be of interest because of age of some of the samples (1740-present).

< 70> Irving M. Shapiro
Dept. of Biochemistry; School of Dental
- 70- Medicine; Univ of Pa.; Philadelphia, PA
19174; (215) 243-8935

Component	Sampling	Storage	Overall
Trace Element	I	C[1]-D[2]I	C[1]-D[2]I
Trace Organic	I	C[2]-E[1]I	C[2]-E[1]I
Pesticides	I	C[2]-E[1]I	C[2]-E[1]I
Radionuclides	I	C[1]-D[2]I	C[1]-D[2]I
Microbiological	E	E	E

Comments: [1]plastic; [2]glass.

* * * * *

< 71> Herbert L. Needleman
Children's Hospital Medical Center; 300
- 71- Longwood Ave.; Boston, MA 02115
(617) 734-6000, ext. 3400

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

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< 72 > Herbert Tischler
Dept. of Earth Sciences; Univ. of New
- 72 - Hampshire; Durham, NH 03824
(603) 862-1718

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

< 73 > Lester J. Walters, Jr.
Dept. of Geology; Bowling Green State Univ.
- 73- Bowling Green, OH 43403
(419) 372-2886

Component	Sampling	Storage	Overall
Trace Element	CI	C[1]I	C[1]I
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	C[1]I	C[1]I
Microbiological	E	E	E

Comments: [1]frozen; (possible contamination from CAB tubing).

* * * * *

< 74 > G. Kullerud
Dept. of Geosciences; Purdue Univ.
- 74- W. Lafayette, IN 49707
(317) 494-8171

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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< 75 > Howard R. Ritzma; Utah Geological & Mineral
Survey; Utah Dept. of Natural Resources; 103
- 75- Utah Geological Survey Bldg.; Univ. of Utah;
Salt Lake City, UT 84112; (801) 581-6831

Component	Sampling	Storage	Overall
Trace Element	I	DI	DI
Trace Organic	I	DI	DI
Pesticides	I	DI	DI
Radionuclides	I	DI	DI
Microbiological	E	E	E

Comments:

< 76 >　J. R. McHenry
USDA Sedimentation Lab.; Box 1157
-76 -　Oxford, MS 38655
(601) 234-4121

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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< 77 >　John Kempton
Illinois State Geological Survey; Natural
- 77 -　Resources Bldg.; Urbana, IL 61801
(217) 344-1481

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

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< 78 >　Stephen G. Shetron
School of Forestry and Wood Products; Ford
- 78-　Forestry Center; L'Anse, MI 49946
(906) 524-7236; (906) 524-6631

Component	Sampling	Storage	Overall
Trace Element	I	CI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radicnuclides	I	CI	I
Microbiological	E	E	E

Comments:

< 79 > J. S. Marshall; Environmental Sciences Section;
Radiological Physics Div.; Argonne National
- 82 - Lab.; 9700 Cass Ave.; Argonne, IL 60439;
(312) 739-7711, ext. 2864

Component	Sampling	Storage	Overall
Trace Element	CI	C^1-D^2I	C^1-D^2I
Trace Organic	CI	D^2-E^1I	D^2-E^1I
Pesticides	CI	D^2-E^1I	D^2-E^1I
Radionuclides	CI	C^1-D^2I	C^1-D^2I
Microbiological	E	E	E

Comments: [1]plastic; [2]cardboard.

* * * * *

< 80 > Donald A. Klein
Microbiology Dept.; Colorado State Univ.
- 81 - Fort Collins, CO 80521
(303) 491-6947 or- 0136; (303) 493-0212

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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< 81 > Louis T. Kardos
Dept. of Agronomy; Pa. State University
- 79- 218 Tyson Bldg.; University Park, PA
(814) 865-1169

Component	Sampling	Storage	Overall
Trace Element	CI	D I	D I
Trace Organic	CI	D-E^1I	D-E^1I
Pesticides	CI	D-E^1I	D-E^1I
Radionuclides	CI	D I	D I
Microbiological	E	E	E

Comments: [1]if plastic impregnated.

< 82 > Robert W. Johnson
U.S. Soil Conservation Service; 401 1st St.
- 80 - Gainsville, FL 32601
(904) 373-2493; FTS (904) 377-3277

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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< 83 > Stuart W. Maher
East Tennessee Branch; Tennessee Div. of
- 83 - Geology; 4711 Old Kingston Pike; Knoxville,
TN 37919, (615) 588-6575

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

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<84 > Harold C. Mattraw
Miami Subdistrict Office; U.S.G.S. Water
- 84 - Resources Div.; 901 S. Miami Ave.; Miami
FL 33130 (305) 350-5382

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

< 85> R. J. Stephenson
U.S. Army Corps of Engineers; South
- 85- Atlantic Div.; P.O. Box 51; Merritta,
GA 30061; (404) 424-8811, ext.2346

Component	Sampling	Storage	Overall
Trace Element	I	D I	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	D I	I
Microbiological	E	E	E

Comments:

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< 86> Jonathan H. Goodwin
Dept. of Geology and Physics; Univ. of
- 86- Utah; Salt Lake City, UT 84112
(801) 581-7062

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

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< 87> MacKenzie L. Keith
Mineral Conservation Section; 120 Mineral
- 87- Sciences Bldg.; Pa. State Univ.; University
Park, PA 16802; (814) 865-7261

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

< 88 > Kenneth Steele
- 88 - Dept. of Geology; Univ. of Arkansas
Fayetteville, AR 72701
(501) 575-3355

Component	Sampling	Storage	Overall
Trace Element	B I	CI	CI
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	B I	CI	CI
Microbiological	E	E	E

Comments: If frozen may be of interest for trace elements and radionuclides.

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< 89> Tsaihwa J. Chow
Scripps Inst. of Oceanography;
- 89- La Jolla, CA 92037
(714) 452-4086

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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< 90 > Andrew D. Eaton
Dept. of Geological Sciences; California
- 92- Inst. of Technology; Pasadena, CA 91109

Component	Sampling	Storage	Overall
Trace Element	B-CI	C-DI	C-DI
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	BI	C-DI	C-DI
Microbiological	E	E	E

Comments: Of possible interest for trace elements and radionuclides.

<91 > G. H. Keller
NOAA, Marine Geology and Geophysics Lab.
-91 - 15 Rickenbacker Causeway; Miami, FL 33149
(305) 361-3361, ext. 314

Component	Sampling	Storage	Overall
Trace Element	CI	C[1]-DI	C[1]-DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	C[1]-DI	C[1]-DI
Microbiological	E	E	E

Comments: [1] frozen.

* * * * *

<92 > Michael J. Cruickshank
U.S. Geological Survey; Office of the Area
-90 - Mining Supervisor; 345 Middlefield Rd.;
Menlo Park, Ca 94025; (415) 323-8111

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<93 > Chester C. Langway, Jr.
Cold Regions R-E Lab.; P.O. Box 282;
-98 - Hanover, NH 03755
(603) 643-3200, ext. 258

Component	Sampling	Storage	Overall
Trace Element	C I	B-CI	CI
Trace Organic	C I	E	E
Pesticides	C I	E	E
Radionuclides	C I	B-CI	CI
Microbiological	E	E	E

Comments: May be of interest for trace elements and radionuclides.

< 94> Kenneth Holtje
- 93- Branch Chief-Water Quality; U.S. Forest Service; 633 W. Wisconsin Ave.; Milwaukee, WI 53203; (414) 224-3324

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	CI	CI
Microbiological	CI	E	E

Comments:

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< 95> Allan D. Hartwell
- 94- Oceanography Dept.; Normandeau Assoc., Inc.
Nashua Rd.; Bedford, NH 03102
(603) 472-5191

Component	Sampling	Storage	Overall
Trace Element	C I	DI	DI
Trace Organic	C I	E	E
Pesticides	C I	E	E
Radionuclides	C I	DI	DI
Microbiological	E	E	E

Comments: Water loss while frozen.

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< 96 > Bill Calloway
- 95- Ecological Services; Texas Instruments Inc.
P.O. Box 5621, MS 949; Dallas, TX 75222
(214) 238-4221

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	C[1]I	C[1]I
Pesticides	CI	C[1]I	C[1]I
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments: Good possibility for trace elements, organics, pesticides, and radionuclides if frozen permanent storage.
[1]glass.

< 97> Bobby G. Wixson; J. Charles Jennett
Environmental Res. Center; Univ. of
- 96- Missouri; Rolla, MO 65401
(314) 341-4483; (314) 341-4480

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

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< 98> Donald O. Whittemore
Dept. of Geology; Kansas State Univ.
- 97- Thompson Hall; Manhattan, KS 66506
(913) 532-6724

Component	Sampling	Storage	Overall
Trace Element	CI	C[1]-D[2]I	C[1]-D[2]I
Trace Organic	C-E[1]	D[2]-E[1]I	D[2]-E[1]I
Pesticides	C-E[1]	D[2]-E[1]I	D[2]-E[1]I
Radionuclides	CI	C-DI	C-DI
Microbiological	E	E	E

Comments: [1]plastic; [2]glass.

* * * * *

< 99> J. A. Warburton
Univ. of Nevada; Desert Res. Inst.
- 99- Reno, NV 89507
(702) 972-1676, ext. 66

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

<100>
-100-

Sulo Wiitala; U.S. Geological Survey;
Water Resources Div.; P.O. Box 1230; Iowa
City, IA 52240
(319) 338-0581, ext. 521; FTS 338-5521

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<101>
-101-

W. L. Schultz; Lab. Director; WV Dept. of
Natural Resources; Div. of Water Resources;
1201 Greenbrier St.; Charleston, WV 25311
(304) 348-2837

Component	Sampling	Storage	Overall
Trace Element	CI	C[1] I	C[1] I
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	C[1] I	C[1] I
Microbiological	I	E	E

Comments: [1]If no liquid preservative is used.

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<102>
-102-

Bruce N. Troup; Dept. of Earth Sciences;
Case Western Reserve University
Cleveland, OH 44106
(216) 368-3688; (216) 368-4040

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

<103> Reed A. Edwards
Southern Services Inc.; P.O. Box 2625
-103- Birmingham, AL 32502
(205) 970-6329

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

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<104> Fred Lettice
940 West Main
El Centro, CA 92243
-104- (714) 352-3610, ext. 242

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	EI	I	I
Pesticides	EI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

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<105> T. L. Montgomery
Air Quality Branch; TVA; River Oaks Bldg.
-107- Muscle Shoals, AL 35660
(805) 383-4631, ext. 555

Component	Sampling	Storage	Overall
Trace Element	CI	C-DI	C-DI
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	CI	C-DI	C-DI
Microbiological	E	E	E

Comments:

<106> Robert Duce
Graduate School of Oceanography; Univ.
-108- of Rhode Island; Kingston, RI 02881
(401) 789-0933

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments: May be of interest for trace elements and radionuclides.

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<107> Jerome J. Wesolowski
Air and Industrial Hygiene Lab.; California
-106- State Health Dept.; 2151 Berkeley Way
Berkeley, CA 94704; (415) 843-7900, ext. 595

Component	Sampling	Storage	Overall
Trace Element	I	CI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	CI	I
Microbiological	E	E	E

Comments:

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<108> Sacramento County Health Agency
6730 Folsom Blvd.
-105- Sacramento, CA 95819
(916) 454-5458

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<109> Walter Loveland
Radiation Center; Oregon State Univ.
-110- Corvallis, OR 97331
(503) 754-2341

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

* * * * *

<110> Arvid Ek
Allegheny County Helath Dept.; Bur. of Air Poll.
-109- Cont.; 301 39th St.; Pittsburgh, PA 15201
(412) 681-9600, ext. 45

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	DI	E	E
Pesticides	DI	E	E
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<111> John B. Dimond
Dept. of Biology; 312 Deering Hall; Univ.
-113- of Maine; Orono, ME 04473
(207) 581-7704

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments: Investigate further, especially for pesticides.

<112>

-114-

Robert E. Vest
Environmental Monitoring Lab.; USDA, APHIS,
PPQ; P.O. Box 989; Gulfport, MS 39501
(601) 863-1972, ext. 6137

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	CI	CI
Pesticides	CI	CI	CI
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

* * * * *

<113>

-111-

Robert A. Lewis; Allen S. LeFohn
National Ecological Res. Lab.; 200 S.W.
35th St.; Corvallis, OR 97330
(503) 752-4401

Component	Sampling	Storage	Overall
Trace Element	I	C[1]-E[2]I	E[2]I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	C[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]frozen; [2]fixed

* * * * *

<114>

-115-

R. Rudd
Dept. of Zoology; Univ. of California;
Davis, CA 95616
(916) 752-1116

Component	Sampling	Storage	Overall
Trace Element	I	CI	I
Trace Organic	I	CI	I
Pesticides	I	CI	I
Radionuclides	I	CI	I
Microbiological	E	E	E

Comments:

<115> C. S. Giam
Dept. of Chemistry; College of Science
-112- Texas A&M Univ.; College Station, TX
77843; (713) 845-5235

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	CI	I
Pesticides	I	CI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments: Could be of interest for organics and pesticides, cf. Anal. Chem., 47, 2225-9 (1975).

* * * * *

<116> Philip Butler
Gulf Breeze Lab.
Gulf Breeze, FL 32561
-116- (904) 377-5268

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	CI	CI
Pesticides	CI	CI	CI
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments: Of possible interest for trace elements, radionuclides, organics, and pesticides.

* * * * *

<117> J. W. Hardin
Dept. of Botany; Gardner Hall; North
-117- Carolina State Univ.; Raleigh, NC 27607
(919) 737-2226

Component	Sampling	Storage	Overall
Trace Element	I	D[1] -E[2]I	E[2]I
Trace Organic	I	D[1] -E[2]I	E[2]I
Pesticides	I	D[1] -E[2]I	E[2]I
Radionuclides	I	D[1] -E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]fixative.

<118>

-118-

Donna M. E. Ware
Herbarium; Dept. of Biology; College of
William & Mary; Williamsburg, VA 23185
(804) 229-3000, ext. 240

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<119>

-119-

John D. Spooner
Dept. of Natural Sciences; Univ. S. Carolina
at Aiken; Aiken, SC 29801
(803) 648-6851

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<120>

-120-

Harry C. Yeatman
Biology Dept.; Univ. of the South
Sewanee, TN 37375
(615) 598-5333

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<121> Frank A. Iwen
Zoological Museum; Dept. of Zoology
-122- Univ of Wisconsin; Noland Zoology Bldg.
Madison, WI 53706; (608) 262-3766

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<122> Leigh H. Fredrickson
Gaylord Memorial Lab.; Univ. of Missouri
-121- Rt. 1; Puxico, MO 63960
(314) 222-3203

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<123> Lovett E. Williams, Jr.
Game & Fresh Fish Comm, Wildlife Res.
-123- Projects Office; 4005 S. Main St.
Gainesville, Fl 32601; (904) 376-6481

Component	Sampling	Storage	Overall
Trace Element	I	C-DI	I
Trace Organic	I	C-DI	I
Pesticides	I	C-DI	I
Radionuclides	I	C-DI	I
Microbiological	E	E	E

Comments:

<124> Peter M. Bourgue
Maine Fish & Game Dept.; Fisheries Div.
-124- Station St.; Ashland, ME 04732
(207) 435-3231

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<125> Robert G. Heath; National Ocean Monitoring
Program; Ecological Monitoring Branch; WH-
-125- 569; U.S. Environmental Protection Agency;
Washington, D.C. 20460; (202) 426-2632

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	CI	CI
Pesticides	CI	CI	CI
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

* * * * *

<126> Edmund C. Aldridge, III
S.C. Dept. of Health & Environmental Control
-126- 2600 Bull St.; Columbia, SC 29206
(803) 758-3499

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<127> William G. Youatt
Michigan Dept. of Natural Resources; Wildlife
-127- Pathology Lab.; East Lansing, MI 48823
(517) 641-4071

Component	Sampling	Storage	Overall
Trace Element	I	CI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	CI	I
Microbiological	E	CI	CI

Comments:

* * * * *

<128> Lloyd F. Kiff; Curator of Museum; Western
Foundation of Vertebrate Zoology; 1100 Glendon
-128- Ave.; Los Angeles, CA 90024; (213) 477-2001,
472-7868, 454-3197

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<129> Edward Balsbaugh
Dept. of Entimology-Zoology; South Dakota
-129- State Univ.; Brookings, SD 57006
(605) 688-6176

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<130>

-130-

Charles A. King, Jr.
Research and Development; CIBA GEIGY Corp.
8233 Mosswood Dr.; Waco, TX 76710
(817) 772-6913

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<131>

-131-

Frederick W. Kutz; National Human Monitoring
Program; Ecological Monitoring Branch; WH-569;
U.S. Environmental Protection Agency; Washington
DC 20460; (202) 426-2632

Component	Sampling	Storage	Overall
Trace Element	C I	D I	D I
Trace Organic	C I	B[1]-CI	CI
Pesticides	C I	B[1]-CI	CI
Radionuclides	C I	D I	D I
Microbiological	E	E	E

Comments: [1] If kept frozen during shipping.

* * * * *

<132>

-132-

Ann E. Carey; National Soils Monitoring
Program; Ecological Monitoring Branch WH-569;
EPA; Washington, DC 20460; (202) 426-2632

Component	Sampling	Storage	Overall
Trace Element	CI	C-DI	C-DI
Trace Organic	CI	C-DI	C-DI
Pesticides	CI	C-DI	C-DI
Radionuclides	CI	C-DI	C-DI
Microbiological	E	E	E

Comments:

<133>
-133-

Han Tai; Gerald Gardner; Pesticide
Monitoring Lab.; Environmental Protection
Agency; Miss. Test Facility; Bldg. 1105;
Bay St. Louis, MS 39520; FTS (601) 688- 3212

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<134>
-134-

Russell S. Adams, Jr.
Soil Science; Univ. of Minnesota; Inst.
of Agriculture; St. Paul, MN 55101
(612) 373-1361

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-I	I
Trace Organic	I	D[2]-E[1]I	E[1]I
Pesticides	I	D[2]-E[1]I	E[1]I
Radionuclides	I	D[1]I	I
Microbiological	E	E	E

Comments: [1]plastic; [2]cardboard.

* * * * *

<135>
-135-

Daniel B. Sass
P.O. Box 851; Alfred University
Alfred, NY 14802
(607) 871-2203

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

<136>
-136-

Robert Heath
Ecological Monitoring Branch-WH-569; U.S.
EPA; Washington, DC 20460
(202) 426-2632

Component	Sampling	Storage	Overall
Trace Element	C I	DI	DI
Trace Organic	C I	C-DI	C-DI
Pesticides	C I	C-DI	C-DI
Radionuclides	C I	DI	DI
Microbiological	E	E	E

Comments:

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<137>
-137-

V. G. Burrell, Jr.
Division of Marine Resources; P.O. Box 12599
Charleston, SC 29412
(803) 795-6350

Component	Sampling	Storage	Overall
Trace Element	CI	C^1-E^2I	C^1-E^2I
Trace Organic	CI	C^3-E^{12}I	C^3-E^{12}I
Pesticides	CI	C^3-E^{12}I	C^3-E^{12}I
Radionuclides	CI	C^1-E^2I	C^1-E^2I
Microbiological	E	E	E

Comments: ^{1}plastic; ^{2}liquid preservative; ^{3}glass.

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<138>
-138-

Robert G. Heath; National Air Monitoring
Program; Ecological Monitoring Branch; WH-569;
U.S. EPA; Washington, DC 20460
(202) 426-2632

Component	Sampling	Storage	Overall
Trace Element	E	E	E
Trace Organic	E	E	E
Pesticides	C-DI	C-DI	C-DI
Radionuclides	E	E	E
Microbiological	E	E	E

Comments:

<139> David L. Nelson
U.S. Forest Service; Forestry Sciences
-139- Lab.; 860 Wize; Logan, UT 84321
(801) 752-1311

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	I	E	E

Comments:

* * * * *

<140> Marie B. Abbott
George Gray Museum; Marine Biological Lab.
-140- Woods Hole, MA 02543
(617) 548-3705, ext. 508, 531

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	CI	E	E

Comments:

* * * * *

<141> Stanley Gessel
College of Forest Resources; Univ. of Wash.
-148- Seattle, WA 98195
(206) 543-2730

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<142> Charles L. Coughenour
Cayuga County Health Dept.; Cayuga County
-142- Environmental Health; Genessee St.; Auburn,
NY 13021; (315) 253-1301

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	I	I	I

Comments:

* * * * *

<143> William Stanwood Cath
Executive Secretary; National Assoc. of State
-141- Dept. of Agriculture; 1616 H St., NW;
Washington, DC 20006; (202) 628-1566

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

* * * * *

<144> Will J. Cloyd
Dept. of Biology; Carson-Newman College
-143- Jefferson City, TN 37761
(615) 475-9061, ext. 254

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	I	DI	I

Comments:

<145> Jay L. Harmic
Marco Applied Marine Ecology Station; N.
-144- Barfield Dr.; Marco Island, FL 33937
(904) 394-2795

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<146> Douglas L. Mitchum
Wyoming Game & Fish Comm.; Univ. Sta.
-146- P.O. Box 3312; Larmie, WY 82071
(307) 745-5865

Component	Sampling	Storage	Overall
Trace Element	I	D-E^{1}I	E^{1}I
Trace Organic	I	D-E^{1}I	E^{1}I
Pesticides	I	D-E^{1}I	E^{1}I
Radionuclides	I	D-E^{1}I	E^{1}I
Microbiological	I	I	E^{1}I

Comments: [1]Formalin.

* * * * *

<147> Richard B. Davis
Caesar Kleberg Chair Ecclogy; Texas A&I
-145- Univ.; Box 2176; Kingsville, TX 78363
(512) 595-3803

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

<148> E. G. Gregory
Bureau of Environmental Health; Nye Bldg.;
-147- 201 South Fall St.; Carson City, NV 89701
(702) 885-4750

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	CI	E	E

Comments:

* * * * *

<149> Glenn W. Allman
Dept. of Microbiology; 799 WIDB; Brigham
-150- Young Univ.; Provo, UT 84602
(801) 374-1211, ext. 2194

Component	Sampling	Storage	Overall
Trace Element	E	E	E
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	E	E	E
Microbiological	CI	CI	CI

Comments:

* * * * *

<150> Catherine M. Newth
Dept. of Microbiology & Public Health
-154- Michigan State Univ.; East Lansing, MI
48824 (517) 355-6503

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	CI	CI

Comments:

<151> Raghavan Charudattan
Plant Virus Lab.; Univ of Florida;
-151- Gainesville, FL 32611
(904) 378-9140

Component	Sampling	Storage	Overall
Trace Element	I	D-E[1]I	I
Trace Organic	I	D-E[1]I	I
Pesticides	I	D-E[1]I	I
Radionuclides	I	D-E[1]I	I
Microbiological	I	I	I

Comments: [1]cultured

* * * * *

<152> F. B. Lewis
Northeast Forest Experimental Sta.; 151
-153- Sanford St.; Hamden, CT 06514
(203) 772-0800, ext. 6153

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	CI	CI	CI

Comments:

* * * * *

<153> J. J. Callis
Plum Island Animal Disease Lab.; P.O.
-152- Box 848; Greenport, L.I., NY 11944
(516) 323-2500

Component	Sampling	Storage	Overall
Trace Element	I	C-E[1]I	I
Trace Organic	I	C-E[1]I	I
Pesticides	I	C-E[1]I	I
Radionuclides	I	C-E[1]I	I
Microbiological	I	CI	CI

Comments: [1]cultured.
May be of interest for microbiologicals.

<154> Robert V. Bega
Pacific S.W. Forest Expt. Sta.; USDA Forest
-149- Service; 1960 Addison St.; P.O. Box 245;
Berkelely, CA 94701; (415) 486-3154

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	I	E	E

Comments:

* * * * *

<155> Richard Donovick
American Type Culture Collection; 12301
-155- Parklawn Dr.; Rockville, MD 20852
(301) 881-2600

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	CI	I

Comments: May be of interest because of source and type of collection.

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<156> L. C. McLaren
Dept. of Microbiology; Univ. of New Mexico
-156- Albuquerque, NM 87131
(505) 277-2609

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	CI	I
Pesticides	I	CI	I
Radionuclides	I	DI	I
Microbiological	I	B-CI	I

Comments: May be of interest for microbiologicals.

<157>

-157-

Thomas M. Yuill
Dept. of Veterinary Science; Univ. of
Wisconsin; Madison, WI 53706
(608) 262-3177

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	I	I

Comments:

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<158>

-158-

Jerald C. Ensign
Dept. of Bacteriology; Univ. of Wisconsin
Madison, WI 53706
(608) 262-7877

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

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<159>

-160-

Frederick J. Post
Dept. of Bacteriology UMC55; Utah State
Univ.; Logan, UT 84322
(801) 752-4100, ext. 7930, 7911

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	CI	I

Comments:

<160>

-161-

Roy M. Johnson
Dept. of Microbiology; Arizona State
Univ.; Tempe, AZ 85281
(602) 965-3483

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	CI	CI	CI

Comments:

* * * * *

<161>

-159-

Clifford W. Hesseltine, Thomas G. Pridham
Fermentation Lab.; Northern Regional Res.
Lab.; 1815 North Univ.; Peoria, IL 61604
(309) 685-4011, ext. 262

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	CI	I

Comments:

* * * * *

<162>

-162-

R. H. McCay
Box 158; Texas A&I Univ.; Kingsville, TX
78363
(512) 595-3803

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	I	I

Comments:

<163> Theodore C. Crusberg
Dept. of Life Sciences; Worcester Polytech.
-166- Inst.; Worcester, MA 01609
(617) 753-1411, ext. 472, 543

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	CI	CI	CI

Comments:

* * * * *

<164> Burton Rosan; The Thomas W. Evans Museum &
Dental Inst.; School of Dental Medicine; Univ.
-164- of Pa.; 4001 Spruce St.; Philadelphia, PA
19104; (215) 594-8988

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	CI	I

Comments:

* * * * *

<165> Paul J. Glantz
105 Animal Ind. Bldg.; Pa. State Univ.
-165- University Park, PA 16802
(814) 865-7696

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	CI	CI	CI

Comments:

<166> Roger S. Grischkowsky
Dept. of Fish & Game; State of Alaska; 333
-163- Raspberry Rd.; Anchorage, AK 99502
(907) 344-0541

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	CI	C[1]I	C[1]I

Comments: [1] Stable for about 2 years.

* * * * *

<167> Joe F. Hennen
Dept. of Botany & Plant Pathology; Purdue
-167- Univ.; W. Lafayette, IN 47907
(317) 749-2947

Component	Sampling	Storage	Overall
Trace Element	I	DI	DI
Trace Organic	I	DI	DI
Pesticides	I	DI	DI
Radionuclides	I	DI	DI
Microbiological	I	E	E

Comments:

* * * * *

<168> Robert A. Sweeney
Great Lakes Lab.; State Univ. College;
-168- 1300 Elmwood Ave.; Buffalo, NY 14222
(716) 862-5422

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	DI	E	E
Microbiological	E	DI	E

Comments:

<169> John J. Lee
City College of CUNY; Dept. of Biology
-169- Convent Ave. at 138th St.; New York, NY
10031; (212) 621-7440

Component	Sampling	Storage	Overall
Trace Element	I[1]	EI[1]	EI[1]
Trace Organic	I[1]	EI[1]	EI[1]
Pesticides	I[1]	EI[1]	EI[1]
Radionuclides	I[1]	EI[1]	EI[1]
Microbiological	I[1]	CI	I

Comments: [1]Authors' references giving information probably available.

* * * * *

<170> G. F. Orr
Life Sciences Lab. Div.; Dugway Proving
-171- Ground; Dugway, UT 84022
(801) 522-5408

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	CI	I

Comments:

* * * * *

<171> Kenneth E. Zeiders
U.S. Regional Res. Lab.; University Park,
-172- PA 16802; (814) 237-7683

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	CI	I

Comments:

<172> Donald Marx
Forestry Sciences Lab.; USFS; Carlton St.
-170- Athens, GA 30602
(404) 546-2435

Component	Sampling	Storage	Overall
Trace Element	DI	E	E
Trace Organic	DI	E	E
Pesticides	DI	E	E
Radionuclides	DI	E	E
Microbiological	CI	CI	CI

Comments: May be of use for microbiologicals.

* * * * *

<173> Robert A. Sweeney
Great Lakes Lab.; State Univ. College;
-173- 1300 Elmwoood Ave.; Buffalo, NY 14222
(716) 862-5821

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	CI	DI	DI

Comments:

* * * * *

< 174> Richard D. Cramer
Tech. Assessment; Smith Kline & French
- 174- Labs.; 1500 Spring Garden St.; Philadelphia,
PA 19101; (215) 854-5648

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

<175> James Schoenewetter
Dept. of Anthropology; Arizona State
-175- Univ.; Tempe, AZ 85281

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<176> James W. Anderson
State Water Quality Controal Board; 6833
-176- Indiana Ave.; Suite 1; Riverside, CA 92506
(714) 684-9330

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<177> Charles W. Riley, Water Resources Comm.; 3005
Alpha St.; Michigan Dept. of Natural Resources;
-177- P.O. Box 1573; East Lansing, MI 48823; (517)
373-2508; 733-3938

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<178> Frank B. Gill
-178- Academy of Natural Sciences; Nineteenth and the Parkway; Philadelphia, PA 19103
(215) 567-3700

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<179> Director
-180- Alabama Geol. Survey; P.O. Drawer O; Univ., AL 35486
(205) 759-5721

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	I-EI	I
Pesticides	I	D-EI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<180> William T. Young
-181- Florida Dept. of Pollution Control; 1384 Shoreline Dr.; Gulf Breeze, FL 32561
(904) 932-5323

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<181> Graig D. Shaak
Dept. of Natural Science; Florida State
-179- Museum; Univ. of Florida; Gainesville, FL
32601; (904) 392-1721

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<182> Carol Allison
Univ. Museum; Univ. of Alaska; Fairbanks,
-182- AK 99701 (907) 479-7505

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<183> Ardell J. Bjugstad; Forestry Res. Lab.;
Rocky Mountain Forest and Range Experiment
-183- Sta.; South Dakota School of Mines and Technology;
Rapid City, SD 57701; (605) 343-0811

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

<184> Wayne O. Willis, Northern Great
Plains Res. Lab.; USDA; P.O. Box 459
-184- Mandan, ND 58554
(701) 663-6448

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<185> S. W. Melsted, Soil Chemistry; Dept. of
Agronomy; College of Agriculture; S.510
-185- Turner Hall; Univ. of Illinois; Urbana,
IL 61801; (217) 333-4376

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<186> Frank Bonner; U.S. Forest Service; Forestry
Tree Seed Lab.; Southern Forest Exp. Sta.;
-186- P.O. Box 906; Starkville, MS 39759
(601) 323-8162

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<187>
-187-

James W. Porter
School of Natural Resources; Univ. of Michigan; Ann Arbor, MI 48104
(313) 763-0047

Component	Sampling	Storage	Overall
Trace Element	D I	D I	D I
Trace Organic	D I	D I	D I
Pesticides	D I	D I	D I
Radionuclides	D I	D I	D I
Microbiological	E	E	E

Comments:

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<188>
-190-

Richard W. Roberts
Dept. of Oceanography; Univ. of Washington; Seattle, WA 98105
(206) 543-6790

Component	Sampling	Storage	Overall
Trace Element	CI	D^{1}-I	D^{1}-I
Trace Organic	CI	D^{2}-E^{1}I	D^{2}-E^{1}I
Pesticides	CI	D^{2}-E^{1}I	D^{2}-E^{1}I
Radionuclides	CI	D^{1}I	D^{1}I
Microbiological	CI	I	I

Comments: ^{1}plastic; ^{2}glass.

* * * * *

<189>
-189-

Richard I. Barnhisel
Dept. of Agronomy; Univ. of Kentucky
Lexington, KY 40506
(606) 257-1513

Component	Sampling	Storage	Overall
Trace Element	CI	D^{1}	DI
Trace Organic	CI	D^{2}-E^{1}I	D^{2}-E^{1}I
Pesticides	CI	D^{2}-E^{1}I	D^{2}-E^{1}I
Radionuclides	CI	D^{1}I	D^{1}I
Microbiological	E	E	E

Comments: ^{1}plastic; ^{2}paper

<190>

-188-

Jean Kemp
Inst. of Mineral Research; Michigan Tech Univ.
Houghton, MI 49931
(906) 487-2600; (906) 487-2572

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<191>

-191-

Ben B. Ewing; Institute for Environmental
Studies; Univ. of Illinois; 911 W. High St.
Urbana, IL 61801
(217) 333-4178

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

< 192>

-193-

Augustus G. Caldwell
Dept. of Agronomy; Rm. 213; Louisiana State
Univ.; Baton Rouge, LA 70803
(504) 388-3381

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

<193> William H. McKee, Jr.; Southern Forest
Experiment Sta.; USDA Forest Service; 2500
-192- Shrevesport Hwy; Pineville, LA 71360
(318) 445-6511, ext. 382

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<194> S. W. Buol; Dept. of Soil Science;
P.O. Box 5907; North Carolina State Univ.;
-194- Raleigh, NC 27607
(919) 737-2388

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<195> Guenther Stotzky; Dept. of Biology;
New York Univ.; Washington Square,
-195- NY 10003
(212) 598-3435

Component	Sampling	Storage	Overall
Trace Element	DI	C-DI	DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	DI	C-DI	DI
Microbiological	E	E	E

Comments:

<196 >

-198 -

Gerald A. Nielson; Dept. of Plant and
Soil Sciences; Montana State Univ.
Bozeman, MT 59715
(406) 994-4601

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

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< 197>

- 196-

George G. Holmgren; Soil Survey Lab.; Soil
Conservation Service 1325 N. St.;
Lincoln, NB 68508
(402) 471-5308

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<198 >

-199-

George G. Holmgren; Soil Survey Lab.;
Soil Conservation Service; 1325 N St.;
Lincoln, NB 68508
(402) 471-5308

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<199> Donald B. Lawrence
Dept. of Botany; Univ. of Minnesota
-197- Biological Science Center; St. Paul, MN
55101; (612) 373-2211

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<200> M. E. Hopkins
209 Natural Resources Bldg.;
-201- Urbana, IL 61801
(217) 344-1481 ext. 260

Component	Sampling	Storage	Overall
Trace Element	I[1]	C-DI[1]	I[1]
Trace Organic	I[1]	E	E
Pesticides	I[1]	E	E
Radionuclides	I[1]	C-DI[1]	I[1]
Microbiological	E	E	E

Comments: [1]Check reference- Ill. State Geological Survey Circular 476, ECN 61

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<201> M. E. Hopkins
209 Natural Resources
-200- Urbana, IL 61801
(217) 344-1481, ext. 260

Component	Sampling	Storage	Overall
Trace Element	CI	C[1]-D[2]I	C[1]-D[2]I
Trace Organic	CI	C[2]I-E[1]	C[2]I-E[1]
Pesticides	CI	C[2]I-E[1]	C[2]I-E[1]
Radionuclides	CI	C[1]-D[2]I	C[1]-D[2]I
Microbiological	E	E	E

Comments: [1]plastic; [2]glass.

<202>

-202-

M. E. Hopkins
209 Natural Resources Bldg.
Urbana, IL 61801
(217) 344-1481, ext. 260

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

* * * * *

<203>

-203-

John C. Green
Dept. of Geology; Univ. of Minnesota
Duluth, MN 55812
(218) 726-7238

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<204>

-204-

Philip M. Cook; Technical Case Coordinator;
U.S. Environmental Protection Agency; National
Water Quality Lab.; 6201 Congdon Blvd.
Duluth, MN 55804; (218) 727-6692, ext. 574

Component	Sampling	Storage	Overall
Trace Element	CI	C-DI	C-DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	C-DI	C-DI
Microbiological	E	E	E

Comments:

<205> Neil F. Shimp; Charles Collinson; David
L. Gross; 361 Natural Resources Bldg.
-205- Urbana, IL 61801
(217) 344-1481

Component	Sampling	Storage	Overall
Trace Element	CI	C-DI	C-DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	C-DI	C-DI
Microbiological	E	E	E

Comments:

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<206> Dennis Cassidy; Antarctic Marine Geological
Res. Facility; Dept. of Geology; Florida
-206- State Univ.; Tallahassee, FL 32306
(904) 644-2407

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<207> Michael E. Field
Geology Branch; USA Coastal Eng. Res. Ctr.
-207- Kingman Bldg.; Ft. Belvoir, VA 22060
(202) 325-7560

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	BI	BI	BI
Microbiological	E	E	E

Comments:

<208> David L. Gross; Charles Collinson; Neil F.
Shimp; Ill. State Geological Survey; Natural
-208- Resources Bldg.; Urbana, Il 61801
(217) 344-1481

Component	Sampling	Storage	Overall
Trace Element	CI	C[1]-DI	C[1]-DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	C[1]-DI	C[1]-DI
Microbiological	E	E	E

Comments: [1]frozen

* * * * *

<209> Robert K. Wyeth; Great Lakes Lab.; State
Univ. College; 1300 Elmwood Ave.;
-209- Buffalo, NY 14222
(716) 862-5821

Component	Sampling	Storage	Overall
Trace Element	CI	C[1]-D[2]I	C[1]-D[2]I
Trace Organic	CI	D[2,3]-E[1,4]I	D[2,3]-E[1,4]I
Pesticides	CI	D[2,3]-E[1,4]I	D[2,3]-E[1,4]I
Radionuclides	CI	C[1]-D[2]I	C[1]-D[2]I
Microbiological	E	E	E

Comments: [1]plastic; [2]glass; [3]not ashed; [4]ashed.

* * * * *

<210> Kenneth K. Barnes
Dept. of Soils, Water & Engineering; Univ.
-210- of Arizona; Tucson, AZ 85721
(602) 884-2258

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<211> Wayne T. Swank; Coweeta Hydrologic Lab.
P.O. Box 601; U.S. Forest Service
-212- Franklin, NC 28734
(704) 524-2128

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<212> Robert S. Pierce
Northeastern Forest Expt. Station; P.O. Box
-211- 640; Durham, NH 03824
(603) 868-5576

Component	Sampling	Storage	Overall
Trace Element	I	C-DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	C-DI	I
Microbiological	E	E	E

Comments:

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<213 > Commander/Director; Atmospheric Sciences
Lab.; U.S. Army Electronics Command; ATTN:
-213- AMSEL-BL-AS (Hoidale); White Sands Missile
Range, NM 88002 FTS (915) 678-1225; 678-2926

Component	Sampling	Storage	Overall
Trace Element	CI	C-DI	C-DI
Trace Organic	DI	E	E
Pesticides	DI	E	E
Radionuclides	CI	C-DI	C-DI
Microbiological	E	E	E

Comments:

<214> Dave Bigelow; Jerry Dodd
NREL-Grassland Biome, Colorado
-216- State Univ.; Ft. Collins, CO 80521
(303) 491-5571

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

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<215> Wayne M. Pichon
WAPORA, Inc.; RR2; Charleston, IL 61920
-217- (217) 348-8193

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<216> S. P. Pavlou
-214- Dept. of Oceanography; Univ. of Washington
Seattle, WA 98195
(206) 543-0632

Component	Sampling	Storage	Overall
Trace Element	CI	C[1]-DI	C[1]-DI
Trace Organic	CI	CI	CI
Pesticides	CI	CI	CI
Radionuclides	CI	C[1]-DI	C[1]-DI
Microbiological	E	E	E

Comments: [1] For crustal materials.

Arlan L. Edgar
<217> Dept. of Biology; Alma College
-215- Alma, MI 48801
(517) 463-4624

Component	Sampling	Storage	Overall
Trace Element	I	D-E[1]I	E[1]I
Trace Organic	I	D-E[1,2]I	E[1,2]I
Pesticides	I	D-E[1,2]I	E[1,2]I
Radionuclides	I	D-E[1]I	E[1]I
Microbiological	E	E	E

Comments: [1]liquid preservative; [2]plastic

* * * * *

<218> C. Dean Dybing; U.S. Dept. of Agriculture;
South Dakota State Univ.; Plant Science Dept.
-218- Brookings, SD 57006
(605) 688-5158

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

Mark J. Schneider; Ecosystems Dept.; Battelle
<219> Memorial Inst.; Pacific N.W. Lab.; Box 999
-219- Richland, WA 99352
(509) 942-5430

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<220> David L. Thomas
Ichthyological Associates; Box 70-D, R.D.
-220- 2; West Brook Lane; Absecon, NJ 08201
(609) 646-8366

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<221> Paul L. Zubkoff; George C. Grant; Environmental
Physiology; Virginia Inst. of Marine Science
-221- Gloucester Point, VA 23062
(804) 642-2111

Component	Sampling	Storage	Overall
Trace Element	I	C[1]D[2]-E[3]I	C[1]D[2]-E[3]I
Trace Organic	I	D[2]-E[1,3,4]	D[2]-E[1,3,4]
Pesticides	I	D[2]-E[1,3,4]	D[2]-E[1,3,4]
Radionuclides	I	C[1]D[2]-E[3]I	C[1]D[2]-E[3]I
Microbiological	E	E	E

Comments: [1]plastic; [2]glass; [3]liquid preservative; [4]dry ashed.

* * * * *

<222> Louise M. Robbins
Dept. of Anthropology-Graham Bldg; Univ of
-222- North Carolina; Greensboro, NC 27412
(919) 379-5144

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments: Some samples may be of interest because of age (3,000-4,000 yrs.).

<223>
-226-

A. H. Seymour; V. A. Nelson; W. R. Schell
Lab. of Radiation Ecology; College of
Fisheries; Univ. of Washington; Seattle, WA
98105; (206) 543-4257

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<224>
-223-

Charles Porter
Eastern Environmental Radiation Facility;
P.O. Box 3009; Montgomery, AL 36109
(205) 272-3402

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<225>
-224-

Eugene J. Michael
Bureau of Radiation Surveillance Network;
Rm. 404; 50 Wolf Rd.; Albany, NY 12201
(518) 457-6600

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	EI	EI
Pesticides	I	EI	EI
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<226>

-225-

Vaughan T. Bowen; Chemistry Dept.; Woods
Hole Oceanographic Inst.; Water St.
Woods Hole, MA 02543
(617) 548-1400, ext. 310

Component	Sampling	Storage	Overall
Trace Element	BI	C-E[1]I	C-E[1]I
Trace Organic	BI	E	E
Pesticides	BI	E	E
Radionuclides	BI	C-E[1]I	C-E[1]I
Microbiological	E	E	E

Comments: [1]formaldehyde.
May be of interest for trace elements and radionuclides.

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<227>

-227-

Donald W. Hendricks
NERC Radiation Operations; P.O. Box 15027
Las Vegas, NV 89114
(702) 736-2969, ext. 305

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	BI	BI	BI
Microbiological	E	E	E

Comments: May be of interest for trace element and radionuclides.

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<228>

-228-

James H. Jenkins; Dept. of Wildlife
Mangement; School of Forest Res; Univ of
Georgia; Athens, GA 30601
(404) 542-1373

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<229> Evan Campbell
Los Alamos Scientific Lab.; P.O. Box 1663;
-229- Los Alamos, NM 87544
(505) 667-6235

Component	Sampling	Storage	Overall
Trace Element	I	C^1-D^2I	I
Trace Organic	I	D^2-E^1I	E^1I
Pesticides	I	D^2-E^1I	E^1I
Radionuclides	I	C^1-D^2I	I
Microbiological	E	E	E

Comments: ^{1}plastic; ^{2}glass.

* * * * *

<230> Edward P. Hardy, Jr., USAEC
376 Hudson Street
-230- New York, NY 10014
(212) 620-3623

Component	Sampling	Storage	Overall
Trace Element	I	CI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	CI	I
Microbiological	E	E	E

Comments:

* * * * *

<231> G. J. Miller; Div. of Biochemistry; P.O.
Box 3944; University Sta.; Univ. of Wyoming
-231- Laramie, WY 82071
(307) 766-5199

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	BI	CI	CI
Microbiological	E	E	E

Comments: Of possible interest for trace elements and radionuclides if frozen.

<232>

-232- Stuart C. Black
National Environmental Res. Center; P.O.
Box 15027; Las Vegas, NV 89114
(702) 736-2969, ext. 378

Component	Sampling	Storage	Overall
Trace Element	CI	C-DI	C-DI
Trace Organic	CI	D-E^{1}I	D-E^{1}I
Pesticides	CI	D-E^{1}I	D-E^{1}I
Radionuclides	CI	C-DI	C-DI
Microbiological	E	E	E

Comments: [1]plastic

* * * * *

<233>

-233- Stephen D. Smith; Dept. of Anatomy; Univ.
of Kentucky College of Medicine; A. B.
Chandler Medical Center; Lexington, KY
40506; (606) 233-5347

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<234>

-234- T. E. Walton; Arhropod-Borne Animal Diseases
Res.; USDA-ARS; Denver Federal Center, Bldg.
45; P.O. Box 25327; Denver, CO 80202
(303) 234-2474

Component	Sampling	Storage	Overall
Trace Element	I	D-E^{1}I	E^{1}I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	D-E^{1}I	E^{1}I
Microbiological	I	I	I

Comments: [1]cultured

<235> Leslie H. Stephens
2315 Grand Ave.; Apt. #3
-235- Everett, WA 98201
(206) 252-0705

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<236> Thomas R. Sawa; Hawaii Dept. of Agriculture
Veterinary Lab. Branch; Div. of Animal Ind.
- 236- 1428 S. King St.; Honolulu, HI 96814
(808) 941-3071

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<237> Robert Gresbrink; Oregon Dept. of Human
Resources; Health Div.; P.O. Box 231
-238- Portland, OR 97207
(503) 229-6241

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<238> Joe A. Quick, Jr.; Florida Dept. Natural
Resources; Marine Lab.; 100 8th Ave. S.E.
-239- St. Petersburg, FL 33731
(813) 896-8626

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	DI	DI

Comments:

* * * * *

<239> Richard E. Wolke; Dept. of Animal Pathology;
Agriculture Exp. Sta.; Univ. of Rhode Island
-237- Kingston, RI 02881
(401) 792-2334

Component	Sampling	Storage	Overall
Trace Element	E	E	E
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	E	E	E
Microbiological	E	E	E

Comments:

* * * * *

<240> Forest E. Kellogg
College of Veterinary Medicine; Univ. of
-240- Georgia; Athens, GA 30601
(404) 542-1741

Component	Sampling	Storage	Overall
Trace Element	DI	E	E
Trace Organic	DI	E	E
Pesticides	DI	E	E
Radionuclides	DI	E	E
Microbiological	E	E	E

Comments:

<241> Lynn A. Griner; San Diego Zoo, Pathology;
San Diego Zoological Society; P.O. Box 551
-241- San Diego, CA 92112
(714) 234-5151, ext. 13

Component	Sampling	Storage	Overall
Trace Element	I	C[1]-E[2]I	E[2]I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	C[1]-E[2]I	E[2]I
Microbiological	I	I	I

Comments: [1]frozen; [2]formalin.

* * * * *

<242> William J. Boever
St. Louis Zoo; Forest Park;
-242- St. Louis, MO 63110
(314) 781-0900, ext. 77

Component	Sampling	Storage	Overall
Trace Element	I	D[1]E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]frozen; [2]formalin

* * * * *

<243> Duane Fickeisen; Ecosystems Dept.; Battelle
Memorial Inst.; Pacific N.W. Lab.; P.O. Box
-243- 999; Richland, WA 99352
(509) 942-3522

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<244> Albert H. Banner; Hawaii Inst. of Marine
Biology; Univ. of Hawaii; P.O. Box 1346
-244- Kaneohe, HI 96744
(808) 247-6631

Component	Sampling	Storage	Overall
Trace Element	I	C[1]-E[2]I	E[2]I
Trace Organic	I	C[1]-E[2]I	E[2]I
Pesticides	I	C[1]-E[2]I	E[2]I
Radionuclides	I	C[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1] fish (frozen); [2]shrimp (liquid preservative)

* * * * *

<245> R. H. Bubar; 239 Veterinary Medicine;
College of Veterinary Medicine; Univ. of
-245- Illinois; Urbana, IL 61801
(217) 333-1109

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	E[1]I	E[1]I
Pesticides	I	E[1]I	E[1]I
Radionuclides	I	DI	I
Microbiological	E	EI	EI

Comments: [1]plastic

* * * * *

<246> Ralph A. Vosdingh
Veterinary Dept.; USA Medical Lab.;
-247- Ft. Sam Houston, TX 78234
(512) 221-2015

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	CI	CI
Pesticides	I	CI	CI
Radionuclides	I	CI	CI
Microbiological	E	E	E

Comments:

<247> Patrick D. Karns; Big Game Res.; Minnesota
Dept. of Natural Resources; 501 S. Pokegama
-246- Ave.; Grand Rapids, MN 55744
(218) 326-6674

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	CI	CI
Pesticides	CI	CI	CI
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

* * * * *

< 248> Thomas H. Shepard; Dept. of Pediatrics;
Central Lab. for Human Embryology RD-20
-248- Univ. of Washington; Seattle, WA 98195
(206) 543-3373

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<249> Geno Saccammano
St. Marys Hospital; Grand Junction, CO
-249- 81501
(303) 242-0731

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dried; [2]formalin

<250>

-271-

J. A. Oppold
267 401 Building
Chattanooga, TN 37401
(615) 755-3175

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<251>

-308-

Daniel L. Stoneburner
Haskell Lab.; Elkon Rd.
Newark, DE 19711
(302) 366-4977

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<252>

-310-

Donald C. Gasper
W. Va. Dept. Natural Resources; 4 Ritchie;
Buckhannon, WV 26201
(304) 472-3266

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<253> Frederick R. Swan, Jr.
Dept. of Biology; West Liberty State College
-311- West Liberty, WV 26074
(304) 336-8091

Component	Sampling	Storage	Overall
Trace Element	DI	C[1]-DI	DI
Trace Organic	DI	C[1]-DI	DI
Pesticides	DI	C[1]-DI	DI
Radionuclides	CI	C[1]-DI	CI
Microbiological	E	E	E

Comments: [1]frozen.

* * * * *

<254> Edward S. Bender; Aquatic Ecology Unit
Ecological Res. Section; Biomedical Lab.
-312- Edgewood Arsenal, MD 21010
(301) 671-2586

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	I
Trace Organic	I	D[1]-E[2]I	I
Pesticides	I	D[1]-E[2]I	I
Radionuclides	I	D[1]-E[2]I	I
Microbiological	E	E	E

Comments: [1]dry; [2]alcohol

* * * * *

<255> Albert M. Bargeski; NOAA, Dept. of Commerce;
Oceanic Service Branch; National Oceanographic
-309- Data Center; Washington, DC 20235
(202) 343-8921

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<256> James N. Layne; Archbold Biological Sta.;
American Museum of Natural History; Rt.2.,
-289- Box 180; Lake Placid, FL 33852
(813) 465-2571

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]fixative

* * * * *

<257> William W. Kirby Smith
Museum Curator; Duke Univ.; Marine Lab.;
-307- Beaufort, NC 28516
(919) 728-2111

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<258> Joseph C. Cooney; Environmental Biology Lab.
Tenn. Valley Authority; Office of Health &
-291- Environmental Sci.; TVA, E&D Bldg.; Muscle
Shoals, AL 35660; FTS (205) 383-4727

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dried; [2]liquid preservative.

<259> Michael Kudish
Dept. of Forestry; Paul Smith's College;
-293- P.O. Box 52; Paul Smiths, NY 12970
(518) 327-6330; 327-6211; Home 891-2894

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<260> John G. New
Dept. of Biology; State Univ. College;
-296- Oneonta, NY 13820
(607) 431-3703

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<261> Hilbert R. Siegler; Joseph E. Wiley
New Hampshire Fish & Game Dept.; Game
-297- Management & Res. Div.; 34 Bridge St.;
Concord, NH 03301; (603) 271-2462

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<262> Walter A. Jones; Environmental Sci.;
Somerset Environmental Education Center;
-298- Box 837; Somerville, NJ 08876
(201) 766-2489

Component	Sampling	Storage	Overall
Trace Element	CI	D-E[1]I	D-E[1]I
Trace Organic	CI	D-E[1]I	D-E[1]I
Pesticides	CI	D-E[1]I	D-E[1]I
Radionuclides	CI	D-E[1]I	D-E[1]I
Microbiological	E	E	E

Comments: [1]formalin

* * * * *

<263> James B. Kirkwood; William F. Clapp Lab.;
Battelle-Columbus Lab.; Washington St.
-295- Duxbury, MA 02332
(617) 934-5682

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<264> Stephen W. Eaton
Dept. of Biology; St. Bonaventure Univ.
-294- St. Bonaventure, NY 14778
(716) 375-2118

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	I	E	E

Comments: [1]dry; [2]liquid preservative.

<265>
-304-

Louis F. Wilson
USDA Forest Service; Michigan State Univ.
East Lansing, MI 48823
(517) 355-0090

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<266>
-292-

Adrian R. Lawler; Dept. of Parasitology;
Gulf Coast Res. Lab.; P.O. Box AG;
Ocean Springs, MS 39564
(601) 875-2244, ext. 56

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	CI	E	E

Comments:

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<267>
- 301-

E. F. Stoermer; Great Lakes Res. Div.;
1060 North Univ. Bldg.; Univ. of Michigan
Ann Arbor, MI 48104
(313) 764-2420

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<268> Zelek L. Lipchinsky
Dept. of Geology; Berea College;
-288- Berea, KY 40403
(606) 986-9341, ext. 598

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<269> Thomas H. Rennie
Dept. of Biology; Augustana College
-305- Rock Island, IL 61201
(309) 794-7248

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<270> Norman Kutscha; Malcolm Coulter
School of Forest Resources; Univ. of Maine;
- 302- Orono, ME 04473
(207) 581-7312

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<271>
-290-

Burt L. Monroe, Jr.
Dept. of Biology; Univ. of Louisville
Louisville, KY 40208
(502) 636-4431

Component	Sampling	Storage	Overall
Trace Element	I	D^1-E^2I	E^2I
Trace Organic	I	D^1-E^2I	E^2I
Pesticides	I	D^1-E^2I	E^2I
Radionuclides	I	D^1-E^2I	E^2I
Microbiological	E	E	E

Comments: ^{1}dry; ^{2}ethanol

* * * * *

<272>
-306-

V. R. Ferris
Dept. of Entomology; Purdue Univ.
Lafayette, IN 47907
(317) 749-2458

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<273>
-267-

Denzel E. Ferguson
P.O. Box 989
Burns, OR 97720
(503) 493-2629

Component	Sampling	Storage	Overall
Trace Element	I	D^1-E^2I	I
Trace Organic	I	D^1-E^2I	I
Pesticides	I	D^1-E^2I	I
Radionuclides	I	D^1-E^2I	I
Microbiological	E	E	E

Comments: ^{1}dry; ^{2}liquid preservative

<274> R. A. Peppers
223 Natural Resources Bldg.
-269- Urbana, Il 61801
(217) 344-1481, ext. 224

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<275> Glenn A. Hackwell
Dept. of Biology; California State College
-273- Stanislaus; Turlock, CA 95380
(209) 632-4357

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<276> Steve A. Loe; Bruce Reinhardt
U.S. Forest Service; Six Rivers National
-272- Forest; 710 E. St.; Eureka, CA 95501
(707) 442-1721

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<277> John B. Davis, Jr.; San Diego Natural
History Museum; P.O. Box 1390
-259- San Diego, CA 92112
(714) 232-3821

Component	Sampling	Storage	Overall
Trace Element	I	D^1-E^{2}I	E^{2}I
Trace Organic	I	D^1-E^{2}I	E^{2}I
Pesticides	I	D^1-E^{2}I	E^{2}I
Radionuclides	I	D^1-E^{2}I	E^{2}I
Microbiological	E	E	E

Comments: ^{1}dry; ^{2}liquid preservative

* * * * *

<278> Donald C. Schmiege
Forestry Sciences Lab.; P.O. Box 909
-254- Juneau, AK 99801
(907) 586-7301

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<279> Charles M. Kirkpatrick; Dept. of Foresty &
Conservation; Purdue Univ.
-251- Lafayette, IN 47907
(317) 494-1476

Component	Sampling	Storage	Overall
Trace Element	EI	E	E
Trace Organic	EI	E	E
Pesticides	EI	E	E
Radionuclides	EI	E	E
Microbiological	EI	E	E

Comments:

<280>
-263-

Richard V. Bovbjerg
Dept. of Zoology; Univ. of Iowa
Iowa City, IA 52242
(319) 353-3421

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<281>
-253-

Roy D. Shenefelt
Dept. of Entomology; 346 Russell Lab.
Madison, WI 53706
(608) 262-1306

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<282>
-262-

J. R. Firby; Mackay School of Mines;
University of Nevada at Reno
Reno, NV 89507
(702) 784-6696; (702) 784-6950

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<283>
-264-

William S. Woolcott
Univ. of Richmond; Box 248
Richmond, VA 23173
(804) 285-6382

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<284>
- 257-

Patrick L. Parker
Marine Science Inst.; Univ. of Texas
Port Arkansas, TX 78373
(512) 749-6730

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<285>
-265-

R. Bruce McMillan
Illinois State Museum
Springfield, IL 62706
(217) 782-7386

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]air; [2]liquid preservative

<286>

-260-

Charles Hayes
367 East Ave.; Rochester Museum & Science Ctr.
Rochester, NY 14603
(716) 271-4320

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

< 287>

-252-

J. R. Choate; Museum of the High Plains
Fort Hays Kansas State College
Hays, KS 67601
(913) 628-5664

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative

* * * * *

<288>

-258-

Gene E. Likens; Langmuir Lab.; Section of
Ecology & Systematics; Cornell University
Ithaca, NY 14850
(607) 256-3498

Component	Sampling	Storage	Overall
Trace Element	I	C[1]-E[2]I	E[2]I
Trace Organic	I	D[3]-E[2]I	E[2]I
Pesticides	I	D[3]-E[2]I	E[2]I
Radionuclides	I	C[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]frozen; [2]liquid preservative; [3]not in plastic.

<289>

-268-

T. O. Thatcher
644 S. 5th East
Logan, UT 84321
(803) 752-5920

Component	Sampling	Storage	Overall
Trace Element	CI	D^{1}-E^{2}I	D^{1}-E^{2}I
Trace Organic	CI	D^{13}-E^{24}I	D^{13}-E^{24}I
Pesticides	CI	D^{13}-E^{24}I	D^{13}-E^{24}I
Radionuclides	CI	D^{1}-E^{2}I	D^{1}-E^{2}I
Microbiological	E	E	E

Comments: ^{1}dry; ^{2}fixative; ^{3}glass; ^{4}plastic.

* * * * *

<290>

- 256-

Ronald R. Weedon
Dept. of Biology; Chadron State College
Chadron, NB 69337
(308) 432-4451, ext. 295

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<291>

-270-

A. Bruce MacLeish; The Kentucky Museum;
Western Kentucky Univ.
Bowling Green, KY 42101
(502) 745-4771

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<292> Larry Evans; Huntington District; Army
Corps of Engineers; P.O. Box 2127
-266- Huntington, WV 25721
(304) 529-2311, ext. 194

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<293> George J. Mueller; Marine Sorting
Center Museum; Univ. of Alaska
-261- Fairbanks, AK 99701
(907) 479-7109

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<294> Max A. Nickerson; Vertebrate Div.; Milwaukee
Public Museum; 8th and Wells; Milwaukee, WI
-255- 53233; (414) 278-2776 (office), (414) 278-2774
(lab), (414) 281-4291 (home)

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<295> Gerald L. Van Amburg
Dept. of Biology; Concordia College
-284- Moorhead, MN 56560
(218) 299-3520

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<296> Larry L. Olmsted
Duke Environmental Lab.; Rt. 3 Box 90
-303- Huntersville, NC 28078
(704) 875-1381

Component	Sampling	Storage	Overall
Trace Element	CI	D[1]-E[2]I	D[1]-E[2]I
Trace Organic	CI	D[1]-E[2]I	D[1]-E[2]I
Pesticides	CI	D[1]-E[2]I	D[1]-E[2]I
Radionuclides	CI	D[1]-E[2]I	D[1]-E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

* * * * *

<297> Galen Eiben
Dept. of Biology; Wartburg College
-300- Waverly, IA 50677
(319) 352-1200, ext. 391

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

<298> Donald Mraz; Center for Great
Lakes Studies; Univ. of Wisconsin
-299- Milwaukee, WI 53201
(414) 963-4196

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<299> Nancy Knepper
Geology Museum; Colorado School of Mines
-274- Golden, CO 80401
(303) 279-3381, ext. 389

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<300> Peter Robinson
University of Colorado Museum
-277- Boulder, CO 80302
(303) 492-6165

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<301> Glenn Longley; Dept. of Biology, Box 46;
Southwest Texas State University
-275- San Marcos, TX 78666
(512) 245-2284

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<302> Hugh H. Genoways
The Museum; Texas Tech. University
-280- Lubbock, TX 79409
(806) 742-5284

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<303> H. A. Ferchau
Dept. of Biology; Western State College
-283- Gunnison, CO 81230
(303) 943-2144

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<304>
-278-

Arthur H. Harris; Museum of Arid
Land Biology; Dept. of Biological Sciences;
Univ. of Texas; El Paso, TX 79968
(915) 747-5165

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<305>
-282-

William A. Cooper
Dept. of Biology; West Texas State Univ.;
Canyon, TX 79016
(806) 656-3238

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]frozen; [2]liquid preservative.

* * * * *

<306>
-279-

Jed J. Ramsey
Dept. of Biology; Lamar Univ.; Box 10037
Beaumont, TX 77710
(713) 838-8221

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<307> George R. Waller; Agricultural Experiment
Station; Oklahoma State University
-276- Stillwater, OK 74074
(405) 372-6211, ext. 266

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<308> John Ransom
Dept. of Biology; Kansas State College
-281- Emporia, KS 66801
(316) 342-1200, ext. 311

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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< 309> Ron Smith; Arizona Game & Fish Dept.
Res. Div.; 2222 W. Greenway Rd.; P.O.
- 287- Box 9099; Phoenix, AZ 85023
(602) 942-3000

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<310>
-286-

Peter H. Benson; Lockhead Aircraft
Service Co.; Dept. of Marine Biology;
3380 N. Harbor Dr.; San Diego, CA 92101
(714) 298-8245

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

< 311>
- 285-

George E. Lindsay
California Academy of Sciences; Golden
Gate Park; San Francisco, CA 94118
(415) 221-5100

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

* * * * *

<312>
-250-

Thomas L. Page; Ecosystems Dept.
Batelle Memorial Inst.; Pacific N,W, Lab.
P.O. Box 999,; Richland, WA 99352
(509) 942-5685

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<313>

-313-

Philip Hartman; The Johns Hopkins Univ.;
Mergenthaler Lab. for Biology
Baltimore, MD
(301) 366-3300, ext. 522, 516

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	I	I

Comments:

* * * * *

<314>

-314-

Leonard N. Zimmerman; Dept. of
Microbiology; S101 Frear Lab.; Penn. State
Univ.; University Park, PA 16802
(814) 865-3867

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

* * * * *

<315>

-318-

William L. Stern
Dept. of Botany; Univ. of Maryland
College Park, MD 20742
(301) 454-3812

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments:

<316> Robert L. Wilbur
Dept. of Botany; Duke Univ.
-315- Durham, NC 27706
(919) 684-3056

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<317> James Mears; Dept. of Botany; Academy of
Natural Sciences; 19th and the Parkway
-316- Philadelphia, PA 19103
(215) 567-3700 ext. 317

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<318> Wm. C. Strickland; College of Arts
and Sciences; Appalachian State Univ.
-317- Boone, NC 28607
(704) 262-3076

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<319> William H. Martin
Dept. of Natural Sciences; Eastern Kentucky
-330- Univ.; Richmond, KY 40475
(606) 622-3122

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<320> Marion T. Jackson
Dept. of Life Sciences; Indiana State Univ.
-320- Terre Haute, IN 47809
(812) 232-6311, ext. 2489

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<321> Dorothy McMeekin; Dept. of Natural Science;
Michigan State Univ.; 1055 Marigold St.
-322- East Lansing, MI 48823
(517) 353-7036

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments: More information should be available from A. L. Kenworthy.

<322>
-319-

Morris Levy; Dept. of Biological Science;
Herbarium; Purdue University
West Lafayette, IN 47907
(317) 493-9227

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	I	E	E

Comments:

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< 323>
-323-

Ralph E. Good
Dept. of Biology; Rutgers Univ.
Camden, NJ 08102
(609) 964-1766

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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< 324>
-324-

Ronald L. Raschke; Dept. of Biology;
Environmental Protection Agency, Region IV;
Bailey Rd.; Athens, GA 30601
(404) 546-2294

Component	Sampling	Storage	Overall
Trace Element	I	D^1-E^2I	E^2I
Trace Organic	I	D^1-E^2I	E^2I
Pesticides	I	D^1-E^2I	E^2I
Radionuclides	I	D^1-E^2I	E^2I
Microbiological	E	E	E

Comments: ^{1}dry; ^{2}liquid preservative

<325> E. E. Hartwig; R. R. Bridge
Delta Branch Exp. Stn.
-325- Stoneville, MS 38776
(601) 686-7281

Component	Sampling	Storage	Overall
Trace Element	I	D-EI	EI
Trace Organic	I	D-EI	EI
Pesticides	I	D-EI	EI
Radionuclides	I	D-EI	EI
Microbiological	E	E	E

Comments:

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<326> Lothian A. Ager; Lake Okeechobee Biological
Stn.; Florida Game & Fresh Water Fish Comm.;
-328- 802 SW 3rd Ave.; Okeechobee, FL 33472
(813) 763-4042; 763-4661

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<327> Paul K. Soderholm; Subtropical Horticulture
Res. Station; 13601 Old Cutler Rd.
-326- Miami, FL 33158
(305) 235-2533

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

<328> Haven C. Sweet
Dept. of Biological Sciences; Florida Tech.
-329- Univ.; P.O. Box 25000; Orlando, FL 32816

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<329> Janice M. Glime
Dept. of Biology; Michigan Tech. Univ.
-327- Houghton, MI 49931
(906) 487-2546

Component	Sampling	Storage	Overall
Trace Element	D^1-E^2I	D^1-E^2I	D^1-E^2I
Trace Organic	D^1-E^2I	D^1-E^2I	D^1-E^2I
Pesticides	D^1-E^2I	D^1-E^2I	D^1-E^2I
Radionuclides	D^1-E^2I	D^1-E^2I	D^1-E^2I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative

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<330> T. S. Elias; James M. Stevenson
Cary Arboretum Herbariums; Box AB
-361- Millbrook, NY 12545
(914) 677-5071; (914) 677-5725

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments:

<331> J. Zavitkovski
Star Rt. #4
-363- Rhinelander, WI 54501
(715) 362-7474

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<332> A. K. Gholson, Jr.
P.O. Box 96
-364- Chattahoochee, FL 32324
(912) 662-2814

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<333> Jedfrey Carlton; Florida Dept. of Natural
Resources; Marine Res. Lab.; 100 8th Ave.
-365- SE; St. Petersburg, FL 33701
(813) 896-8626

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<334> Dr. Pinkava; Higher Plant Herbarium
Arizona State University
-362- Tempe, AZ 85281
(602) 961-9011

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<335> Baki Kasapligil; Dept. of Biology
-331- Mills College; Seminary at MacArthur Blvd.
Oakland, CA 94613
(415) 632-2700, ext. 304

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative

* * * * *

<336> Bayard Brattstrom
Dept. of Biology; California State Univ.
-332- Fullerton, CA 92634
(714) 870-3614; (714) 529-7497 (Home)

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<337> Theodore M. Barkley; Herbarium;
Dept. of Biology; Kansas State Univ.
-338- Manhattan, KS 66506
(913) 532-6619

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<338> William F. Mahler
Herbarium; Southern Methodist Univ.
-343- Dallas, TX 75222
(214) 692-2257

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<339> Ole A. Kolstas
Dept. of Biology; Kearney State College
-340- Kearney, Nebraska 68847
(308) 236-4281

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<340>

-335-

Tom Lockwood; Herbarium
Dept. of Botany; Univ. of Illinois
297 Morrill Hall; Urbana, IL 61801
(217) 333-9357

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<341>

-334-

Stephen L. Clark; Dept. of Botany;
Weber State College; 3750 Harrison Blvd.
Ogden, UT 84403
(801) 399-5941, ext. 517

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<342>

-339-

Louis N. Bass; National Seed Storage Lab.;
Western Region; Agricultural Res. Service;
U.S. Dept. of Agric.; Colorado State Univ.;
Fort Collins, CO 80521; (303) 484-0402

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<343> Clait Braun
Div. of Wildlife; P.O. Box 2287
-341- Ft. Collins, CO 80521
(303) 484-2836

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<344> Howard P. Tietjen; Denver Wildlife Research
Center; US Dept. of the Interior; US Fish &
-342- Wildlife Service; Bldg. 16, Denver Federal Ctr.
Denver, CO 80225; (303) 234-2126

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<345> J. H. Grosklags
Dept. of Biological Sciences; Northern Ill.
-336- Univ.; Dekalb, IL 60115
(815) 753-0433

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	I	I

Comments:

<346>
-321-

Peter J. Salamun
Dept. of Botany; Univ. of Wisconsin-Milwaukee
Milwaukee, WI 53201
(414) 963-4298

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments: Some samples date back to 1870.

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<347>
-337-

Paul B. Kannowski; Institute Ecological
Studies; Univ. of North Dakota
Grand Forks, ND 58201
(701) 777-2851

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<348>
- 352-

George G. Williges
Dept. of Biology; Texas A&I University
Kingsville, TX 78363
(512) 595-3803

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<349> Hugh H. DeWitt
Darling Center
- 355 - Walpole, ME 04573
(207) 563-3146

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<350> James N. Skeen; Fernbank Science Center;
156 Heaton Park Drive N. E.
- 354 - Atlanta, GA 30307
(404) 378-4311

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<351> R. Spellenberg; Dept. of Biology;
P.O. Box 3AF New Mexico State Univ.
- 356 - Las Cruces, NM 88003
(505) 646-3732

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<352> Robert Evers
State Natural History Survey
-358- Champaign, IL 61820
(217) 333-6886

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments: Samples date back to 1880.

* * * * *

<353> Kenton Chambers; The Herbarium;
Cordley Hall; Oregon State Univ.;
-348- Corvallis, OR 97331
(503) 754-1106

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments: Samples date back to 1880.

* * * * *

<354 > Charles F. Yocom; Dept. of Wildlife
Management; School of Natural Resources;
-350- Humboldt State Univ.; 1666 Charles Ave.;
Arcata, CA 95521; (707) 826-4147

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	EI	E

Comments:

<356> Peg Tileston; Alaska Center for the
Environment; Alaska Environmental Inst., Inc.
-345- 913 West Sixth Ave.; Anchorage, AK 99503
(907) 274-3621

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<357> David F. Murray
Herbarium; Univ. of Alaska
-344- College, AK 99701
(907) 479-7108

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<358> Richard B. Walker
Dept. of Botany, AK-10; Univ. of Washington
-347- Seattle, WA 98195
(206) 543-1985

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

<359>

-349-

Clarence M. Rincker; U.S. Dept. of Agric.;
Irrigated Agric. Research & Extension Ctr.
Prosser, WA 99350; (509) 786-3454

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<360>

-351-

R. W. Roberts; Don Leckenby; P.O. Box 9;
Oregon State Game Commission; Div. of Wildlife Research; Silver Lake, OR 97638
(503) 576-2153

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<361>

-353-

R. A. Peppers
223 Natural Resources Bldg.
Urbana, IL 61801
(217) 344-1481, ext. 224

Component	Sampling	Storage	Overall
Trace Element	I	D^{1}-E^{2}I	E^{2}I
Trace Organic	I	D^{3}-E^{24}I	E^{24}I
Pesticides	I	D^{3}-E^{24}I	E^{24}I
Radionuclides	I	D^{1}-E^{2}I	E^{2}I
Microbiological	E	E	E

Comments: ^{1}air; ^{2}liquid preservative; ^{3}glass; ^{4}plastic

<362> Richard D. Porcher, Jr.
The Citadel
-360- Charleston, SC 29409
(803) 723-0611

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<363> Perry C. Holt; Center for Systematic
Studies; Virginia Polytech. Inst. & State
-357- Univ.; Blacksburg, VA 24061
(703) 951-6766

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<364> James S. Henrickson; Dept. of Biology;
California State Univ.; 5151 State University
-333- Dr.; Los Angeles, CA 90032
(213) 224-3258

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<365>　Michael Eubanks
Corps of Engineers; P.O. Box 2288
-366-　Mobile, AL 36628
(205) 690-2725

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<366>　Bud Horder
Corps of Engineers; P.O. Box 2288;
-367-　Mobile, AL 36628
(205) 690-2655

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<367>　John Foley; Biological Monitoring
South Carolina Dept. of Health and Environ.
-368-　Control; 2600 Bull St.; Columbia, SC 29201
(803) 758-3499

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<368> Daniel P. Mahoney; Dept. of Biology; 214
Biological Science Bldg.; California State
-373- Univ.; 5151 State University Dr.; Los Angeles,
CA 90032; (213) 224-2282

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	CI	DI	DI
Microbiological	C-DI	C-DI	C-DI

Comments:

* * * * *

< 369> Donald H. Miller
Dept. of Science; Lyndon State College
-372- Lyndonville, VT 05851
(802) 626-3335

Component	Sampling	Storage	Overall
Trace Element	I	D^1-E^2I	E^2I
Trace Organic	I	D^1-E^2I	E^2I
Pesticides	I	D^1-E^2I	E^2I
Radionuclides	I	D^1-E^2I	E^2I
Microbiological	E	E	E

Comments: [1] dry; [2] in solution.

* * * * *

<370> Pete Wilkinson
Battelle Marine Research; Rt.2; Box 140
- 371- Sequim, WA 98382
(206) 683-4151

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<371> Stanley W. Harris; Wildlife Mangement;
School of Natural Resources; Humbolt State
-370- College; Arcata, CA 95521
(707) 826-3450

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	D-E[1]I	E[1]I
Pesticides	I	D-E[1]I	E[1]I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments: [1] plastic

* * * * *

<372> Charles W. Reimer; Dept. of Diatoms
Philadelphia Academy of Natural Science;
-369- 19th & Parkway; Philadelphia, PA 19103
(215) 567-3700, ext. 346

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<373> Bill Calloway
Texas Instruments, Inc.; P.O. Box 5621, M/S 949;
-375- Dallas, TX 75222
(214) 238-4221

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<374>
-374-

Richard R. Petersen; Dept. of Biology;
Portland State University; Box 751
Portland, OR 97202
(503) 229-4206; (503) 229-4209

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<375>
-376-

Richard L. Meyer; Dept. of Botany and
Bacteriology; Univ. of Arkansas;
Fayetteville, AR 72701
(501) 575-4901

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	EI	EI
Pesticides	CI	EI	EI
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<376 >
-377-

Ray T. Oglesby; Dept. of Natural Resources;
Fernow Hall; Cornell University;
Ithaca, NY 14853
(607) 256-2110

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<377> Carl E. Bond; Dept. of Fisheries and
Wildlife; Oregon State University;
-378- Corvallis, OR 97331
(503) 754-1531

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<378> Imre E. Friedmann; Dept. of Biological
Science; Florida State University
-379- Tallahassee, FL 32306
(904) 644-5438

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

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<379> Paul L. Lentz; Mycology Lab., Plant
Protection Inst.; Agric. Research Service,
-381- U.S. Dept. of Agric.; Rm. 25, Bldg. 005;
ARC-West; Beltsville, MD 20705; (301) 244-3365

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

< 380>

-380-

Martha A. Sherwood; Dept. of Plant
Pathology; 334 Plant Science Bldg.
Cornell Univ.; Ithaca, NY 14850
(607) 256-3293

Component	Sampling	Storage	Overall
Trace Element	I	D^1-E^2I	E^2I
Trace Organic	I	D^1-E^2I	E^2I
Pesticides	I	D^1-E^2I	E^2I
Radionuclides	I	D^1-E^2I	E^2I
Microbiological	E	E	E

Comments: ^{1}dry; ^{2} alcohol. Samples collected from 1800 to present.

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< 381>

-382-

C. Gardner Shaw; Mycological Herbarium;
Dept. of Plant Pathology; Washington State
Univ.; Pullman, WA 99163
(509) 335-1086

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments: Samples collected from 1880 to present.

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< 382>

-386-

Edward Hacskayld; USDA, Forest Physiology
Lab.; Agric. Research Center-West;
Beltsville, MD 20705
(301) 344-3454

Component	Sampling	Storage	Overall
Trace Element	DI	E	E
Trace Organic	DI	E	E
Pesticides	DI	E	E
Radionuclides	DI	E	E
Microbiological	CI	CI	CI

Comments:

<383> Hugh J. Porter
UNC-CH; Inst. of Marine Sciences;
-385- Morehead City, NC 28557
(919) 726-6841

Component	Sampling	Storage	Overall
Trace Element	I	$D^{12}I-E^{3}$	$E^{3}I$
Trace Organic	I	$D^{12}I-E^{3}$	$E^{3}I$
Pesticides	I	$D^{12}I-E^{3}$	$E^{3}I$
Radionuclides	I	$D^{12}I-E^{3}$	$E^{3}I$
Microbiological	E	E	E

Comments: ^{1}frozen; ^{2}dry; ^{3}liquid preservative.

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<384> John F. Tibbs; Biological Station;
Univ. of Montana; Yellow Bay;
-384- Bigfork, MT 59911
(406) 982-3201

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<385> Arthur D. Partridge
College of Forestry; Univ. of Idaho
-383- Moscow, ID 83843
(208) 885-6715

Component	Sampling	Storage	Overall
Trace Element	I	$D^{1}-E^{2}I$	$E^{2}I$
Trace Organic	I	$D^{1}-E^{2}I$	$E^{2}I$
Pesticides	I	$D^{1}-E^{2}I$	$E^{2}I$
Radionuclides	I	$D^{1}-E^{2}I$	$E^{2}I$
Microbiological	I	I	I

Comments: ^{1}dry; ^{2}agar

<386> Jan J. Kohlmeyer
Inst. of Marine Sciences; UNC-CH;
-387- Morehead City, NC 28557
(919) 726-6841

Component	Sampling	Storage	Overall
Trace Element	I	C^1-E^2I	E^2I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	C^1-E^2I	E^2I
Microbiological	E	E	E

Comments: ^{1}frozen and in plastic; ^{2}liquid preservative

* * * * *

<387> Thomas H. Nash; Dept. of Botany &
Microbiology; Arizona State Univ.
-388- Tempe, AZ 85281
(602) 965-7735; (602) 965-3414

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<388> Dennis Disrud
413 Hillcrest Drive
-389- Minot, ND 58701
(701) 838-6101; Home (701) 839-3784

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<389> William E. Berg; Minnesota Dept. of
Natural Resources; Div. of Game & Fish
-390- Box 101; Roosevelt, MN 56673
(218) 783-5863

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<390> Paul Buck; Dept. of Life Sciences;
Univ. of Tulsa; 600 South College
-391- Tulsa, OK 74104
(918) 939-6351, ext. 204

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<391> Kenneth A. Nicely
Dept. of Biology; Western Kentucky Univ.
-392- Bowling Green, KY 42101
(502) 745-3606

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments:

<392> S. G. Froiland
Dept. of Biology; Augustana College;
-393- Sioux Falls, SD 57102
(605) 336-4712

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<393> G. W. Wendel; P.O. Box 455;
Timber & Watershed Laboratory;
-394- Parsons, WV 26287
(304) 478-2000

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<394> Nonan V. Noste
Star Rt. 2; Inst. of Forest Genetics;
-395- Rhinelander, WI 54501
(715) 362-7474

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<395> Gaylord Parks
Placerville Nursery; 2375 Fruitridge Rd.;
-396- Camino, CA 95709
(916) 622-9600

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<396> Edward C. Klostermeyer; Irrigated Agric.
Research and Ext. Ctr.; P.O. Box 30; Washington
-403- State Univ.; Prosser, WA 99350
(509) 786-2226

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

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<397> Gerald S. Strickler; Range and Wildlife
Habitat Lab.; C. Ave. and Gekeler Lane;
-404- Rt. 2 Box 2315; La Grande, OR 97850
(503) 963-7122; FTS (503) 221-0111

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<398>
-397-
Monte Lloyd
Dept. of Zoology; Univ. of Chicago;
Chicago, IL 60637
(312) 753-2711

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<399>
-398-
Addison D. Owings; Dept. of Agriculture;
Southeastern Louisiana University;
Hammond, LA 70401
(504) 549-2141

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<400 >
-400-
Robert J. Rodin; Dept. of Biological
Science; California Polytech. State Univ.;
San Luis Obispo, CA 93407
(805) 546-2192; Home: (805) 543-9244

Component	Sampling	Storage	Overall
Trace Element	I	EI	EI
Trace Organic	I	EI	EI
Pesticides	I	EI	EI
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<401>

-401-

Bryant Bannister; Laboratory of Tree-Ring
Research; University of Arizona
Tucson, AZ 85721
(602) 884-1077

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

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<402>

-402-

A. R. Stage
Forestry Sciences Lab.; 1221 South Main;
Moscow, ID 83843
(208) 882-3557

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<403>

-399-

Patricia H. Packard
Dept. of Biology; College of Idaho;
Caldwell, ID 83605
(208) 459-5232

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments:

<404> Carl H. Tubbs; Northern Hardwoods
-410- Laboratory; 806 Wright Street;
Marquette, MI 49855
(906) 225-1323

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<405> Roger Q. Landers, Jr.; Dept. of Botany &
-409- Plant Pathology; Iowa State Univ.;
Bessey Hall; Ames, IA 50010
(515) 294-3871

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<406> Donald W. Woodard; Dept. of the Army;
-406- Coastal Engineering Research Ctr.; 5201 Little
Falls Rd., NW; Washington, DC 20016
(202) 325-7388

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<407> Beryl B. Simpson; NHB-W-501;
US Museum of Natural History; Smithsonian
-405- Inst.; Washington, DC 20560
(202) 381-5841

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<408> James S. Jordan; Northestern Forest
Experiment Station; Forestry Sciences
-407- Lab.; P.O. Box 928; Warren, PA 16365
(814) 563-7587

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<409> Donald D. Ritchie; Dept. of Biology;
Barnard College; 606 W 120 Street;
-408- New York, NY 10027
(212) 280-5103

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments: Samples collected from 1890 to 1920.

<410> W. A. Feder; Suburban Experimental Sta.;
Univ. Massachusetts; 240 Beaver;
-411- Waltham, MA 02154
(617) 891-0650

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<411> William S. Sipple; Maryland Dept. Natural
Resources; Water Resources Admn.; Tawes State
-412- Office Bldg.; Annapolis, MD 21401
(301) 267-5877

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<412> John E. Deturck; Dept. of Biology;
Cabrini College; King of Prussia Rd.
-414- Radnor, PA 19087
(215) 687-2100 Ext. 67

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<413> W. R. Harms; Forestry Sciences Lab.;
334 Meeting St.; Rm. 620, Federal Bldg.;
-415- Charleston, SC 29403
(803) 577-4171, ext. 271

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<414> James [illegible]. Chaplin; USDA-ARS-Southern Reg.;
Tobacco Research Laboratory;
-413- Oxford, NC 27565
(919) 693-5151

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<415> Vernon E. Gracen, Jr.; Dept. of Plant
Breeding; 413 Bradfield Hall; Cornell Univ.;
-416- Ithaca, NY 14850
(607) 256-3236

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<416> David J. De Laubenfels; Dept. of
Geography; 343 H.B. Crouse Hall;
-417- Syracuse Univ.; Syracuse, NY 13210
(315) 423-2606

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<417> L. H. Durkee;
Dept. of Biology; Grinnell College
-418- Grinnell, IA 50112
(515) 236-6181, ext. 490

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	,I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<418> H. A. Fribourg; Dept. of Plant &
Soil Science; P.O. Box 1071; Univ. of
-420- Tenn.; Knoxville, TN 37916
(615) 974-7161

Component	Sampling	Storage	Overall
Trace Element	I	C^{12}-$D^{3}I$	I
Trace Organic	I	C^{23}-$E^{1}I$	$E^{1}I$
Pesticides	I	C^{23}-$E^{1}I$	$E^{1}I$
Radionuclides	I	C^{12}-$D^{3}I$	I
Microbiological	E	E	E

Comments: ^{1}plastic; ^{2}frozen; ^{3}glass.

<419> Nicholas W. Kramer; Sorghum Research;
Acco Seed; Box 1630
-428- Plainview, TX 79072
(806) 652-3794

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<420> Charles R. Bryant; Bureau of Sport
Fisheries & Wildlife; Rt.2, Box 511
-426- Monte Vista, CO 81144
(303) 852-2435

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<421> M. J. Samuel; High Plains Grasslands
Research Station; P.O. Box 1087
-424- Cheyenne, WY 82001
(307) 778-2220, ext. 2434; FTS (307) 778-2434

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<422> Robert F. Buttery; USDA Forest Ser.;
Bldg. 85; Denver Federal Center;
-425- Denver, CO 80225
(303) 234-4011

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<423> Thomas A. Leege
Idaho Fish & Game Dept.; P.O. Box 398
-427- Kamiah, ID 83536
(208) 935-2276

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	D[1]-E[2]I	D[1]-E[2]I
Pesticides	CI	D[1]-E[2]I	D[1]-E[2]I
Radionuclides	CI	C[2]-D[1]I	C[2]-D[1]I
Microbiological	E	E	E

Comments: [1]glass; [2]plastic.

* * * * *

<424> Robert Steele
316 Myrtle Street
-422- Boise, ID 83706
FTS (208) 342-2532; (208) 342-2711, ext. 2532

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<425> John F. Shroder, Jr., Dept. of Geography-Geology; Univ. of Nebraska at Omaha
-430- Omaha, NB 68101
(402) 554-2662

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

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<426> E. H. McIlvain; US Southern Great Plains; Field Station; P.O. Box 249;
-423- Woodward, OK 73801
(405) 256-7449

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments:

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<427> Joe D. Baldridge; Agric. Experiment Sta.; University of Missouri;
-429- Columbia, MO 65201
(314) 882-6534

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<428> Robert H. Andrew
Dept. of Agronomy; Univ. of Wisconsin;
-419- Madison, WI 53706
(608) 262-0377

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<429> Frederick W. Fuess; Dept. of Agric.;
Turner Hall 124, Illinois State Univ.;
-431- Normal, IL 61761
(309) 436-7076

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<430> Grant A. Harris
Dept. of Forestry; Washington State Univ.;
-421- Pullman, WA 99163
(509) 335-5584

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<431> R. R. Bridge; Agric. & Forestry Exp.
Sta.; Delta Branch Exp. Sta.; P.O. Box 197
-435- Stoneville, MS 38776
(601) 686-7281

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<432> A. A. Beetle
P.O. Box 3354; Univ. Station;
-433- Laramie, WY 82071
(307) 766-4236

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<433> E. W. Belcher; Eastern Seed Lab., State
& Private Forestry; Box 819;
-434- Macon, GA 31202
(912) 744-3311

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	CI	I
Pesticides	I	CI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<434> Desmond D. Dolan; USDA, ARS; Regional
Plant Introduction Sta.; Rm. 201 Sturtevant
-439- Hall; N.Y. State Agric. Exp. Sta.; Geneva, NY
14456; (315) 787-2244

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<435> James D. Maguire; Washington State Univ.;
WSU Seed Laboratory; Johnson Hall;
-432- Pullman, WA 99163
(509) 335-3627

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<436> Leroy C. Johnson; USDA; US Forest Service;
Inst. of Forest Service; Inst. of Forest Genetics
-438- Placeville, CA 95667
(916) 622-1225

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<437> Robert Langford; US Dept. of Agric.;
Southern Regional Plant Introduction Sta.;
-440- Experiment, GA 30212
(404) 227-9471, ext. 257

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<438> G. Douglas Barbe
1220 N. Street
-437- Sacramento, CA 95814
(916) 445-4521

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<439> LeRoy C. Johnson
Inst. of Forest Genetics
-436- Placeville, CA 95667
(916) 622-1225

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<440> Walter C. Roddy
Tyler State College; 100 E. Berth
-444- Tyler, Tx. 75701
(214) 595-0711

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<441> George T. Baxter; Kenneth Diem; Jack Turner
Dept. of Zoology; Univ. of Wyoming
-443- Laramie, WY 82070
(307) 766-4207

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<442> A. L. Gennaro; Natural History
Museum; Eastern New Mexico Univ.;
-446- Portales, NM 88130
(505) 562-2723

Component	Sampling	Storage	Overall
Trace Element	DI	D-E[1]I	D-E[1]I
Trace Organic	DI	D-E[1]I	D-E[1]I
Pesticides	DI	D-E[1]I	D-E[1]I
Radionuclides	DI	D-E[1]I	D-E[1]I
Microbiological	E	E	E

Comments: [1]liquid preservative.

<443> Charles Woods
Dept. of Zoology; Univ. of Vermont
-445- Burlington, VT 05401
(802) 656-2922

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

* * * * *

<444> John B. Funderberg; N.C. Museum of Natural
History; N. Salisbury St.; P.O. Box 27647;
-441- Raleigh, NC 27611
(919) 829-7451

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<445> George H. Allen; Robert A. Behrstock;
Dept. of Fisheries; Humboldt State Univ.;
-442- Arcata, CA 95521
(707) 826-3448, 826-3954

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<446> Hugh A. Swingle; Curator; Alabama
Marine Resources Lab.; Box 188;
-448- Dauphin Island, AL 36528
(205) 861-2882

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<447> C. E. Dawson
Gulf Coast Research Lab.; P.O. Box AG;
-447- Ocean Springs, MS 39564
(601) 875-2244

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<448> Robert R. Stickney; Skidaway Inst. of
Oceanography; P.O. Box 13687; 55 West
-450- Bluff Rd.; Savannah, GA 31406
(912) 352-1631

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<449>   William D. Anderson, Jr.; Grice Marine Biological Lab.; College of Charleston;
-449-   205 Fort Johnson; Charleston, SC 29412
(803) 795-3716

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<450>   James F. Parnell; Dept. of Biology;
Univ. of North Carolina-Wilmington; P.O.
-453-   Box 3725; College Rd.; Wilmington, NC 28401
(919) 791-4330, ext. 254

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<451>   Lynn M. Croshaw
Dept. of Biology; Francis Marion College;
-451-   Florence, SC 29501
(803) 669-4121, ext. 344

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<452> Jerome A. Jackson; Dept. of Zoology;
Mississippi State University;
-455- Mississippi State, MS 39762
(601) 325-5722

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<453> B. A. Simco;
Dept. of Biology; Memphis State Univ.
-454- Memphis, TN 38111
(901) 321-1594

Component	Sampling	Storage	Overall
Trace Element	CI	D[1]-E[2]I	D[1]-E[2]I
Trace Organic	CI	D[1]-E[2]I	D[1]-E[2]I
Pesticides	CI	D[1]-E[2]I	D[1]-E[2]I
Radionuclides	CI	D[1]-E[2]I	D[1]-E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

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<454> S. R. Windham; FL Board of Conservation;
Div. of Water Resources & Conserv.; Bureau
-452- of Geology; 107 West Gaines St.; Tallahassee,
FL 32304; (904) 488-3636

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

<455> E. T. Hooper
Museum of Zoology; Univ. of Michigan
-457- Ann Arbor, MI 48104
(313) 764-0456

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<456> Rollin H. Baker
Univ. Museum; Michigan State University;
-456- East Lansing, MI 48823
(517) 355-2370

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]alcohol.

* * * * *

<457> John J. Ozoga; Michigan Dept. Natural
Resources; Cusino Wildlife Research Sta.;
-458- Shingleton, MI 49884
(906) 452-6226

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<458> James R. Spotila; Dept. of Biology;
State Univ. College of New York; 1300
-462- Elmwood Ave.; Buffalo, NY 14222
(716) 862-6409

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<459> Sydney Anderson; Dept. of Mammalogy;
American Museum of National History; Central
-463- Park West at 79th St.; New York, NY 10024
(212) 873-1300, ext. 427

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments: May be of interest because of sample ages (2,000 B.C .

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<460> Clarence J. McCoy; Amphibians and Reptiles
Sect.; Carnegie Museum of Natural History;
-461- 4400 Forbes Ave.; Pittsburgh, PA 15213
(412) 622-3258

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<461>

-460-

John W. Ferner
Dept. of Biology; Franklin & Marshall
College; Lancaster, PA 17604
(717) 393-3621, ext. 287

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<462>

-464-

Sanford D. Schemnitz; 222 Nutting Hall;
School of Forest Resources; Univ. of Maine;
Orono, ME 04473
(207) 581-7388

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<463>

-459-

Maurice M. Alexander; Dept. of Forest
Zoology; College of Environmental Sci.
and Forestry; SUNY at Syracuse; Syracuse,
NY 13210; (315) 473-8841

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]alcohol.

<464> Stephen R. Humphrey
Florida State Museum; Univ. of Florida
-481- Gainesville, FL 32601
(904) 392-1721

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]alcohol.

* * * * *

<465> P. W. Smith; Sect. of Faunistic Surveys &
Insect Identification; Ill. Natural History
-483- Survey; Natural Resources Bldg.; Urbana, IL
61801; (217) 333-6846; (217) 333-6847

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<466> W. Auffanberg
Florida State Museum; Univ. of Florida;
Gainesville, FL 32601
-484- (904) 392-6573

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	E	E

Comments:

<467>
-485-

John William Hardy
Florida State Museum; Univ. of Florida
Gainesville, FL 32601
(904) 392-1721

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<468>
-476-

George Becker; College of Natural Resources
Dept. of Biology; Univ. of Wisconsin;
Stevens Point, WI 54481
(715) 346-5166

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<469 >
-477-

Robert H. Mount; Dept. of Zoology
and Entomology; Auburn University;
Auburn, AL 36830
(205) 826-4850

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<470> George R. Zug; W. Ronald Heyer; Div. of
Reptiles and Amphibians; Smithsonian Inst.;
-479- US National Museum of Natural History;
Washington, DC 20506; (202) 381-6171

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<471> Frank J. Schwartz
Inst. of Marine Sciences; UNC-CH;
-478- Morehead City, NC 28557
(919) 726-6841

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<472> Herbert S. Harris, Jr.; Natural History
Society of Maryland; 2643 N. Charles St.
-480- Baltimore, MD 21218; (301) 235-6116; 531-5711,
ext. 554; 644-1141 (home)

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<473> Robert J. Boles
Div. of Biology; Eastern Kansas State
-482- College; Emporia, KS 66801
(316) 343-1200, ext. 213

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<474> Milton B. Wagner; Research Office;
Pacific Marine Technology; P.O. Box 8519
-467- Long Beach, CA 90808
(213) 941-5480

Component	Sampling	Storage	Overall
Trace Element	C-DI	E	E
Trace Organic	C-DI	E	E
Pesticides	C-DI	E	E
Radionuclides	C-DI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<475> David B. Wake; Museum of Vertebrate
Zoology; Univ. of Calfornia;
-466- Berkeley, CA 94720
(415) 642-3567

Component	Sampling	Storage	Overall
Trace Element	CI	D[1]-E[2]I	D[1]-E[2]I
Trace Organic	CI	D[1]-E[2]I	D[1]-E[2]I
Pesticides	CI	D[1]-E[2]I	D[1]-E[2]I
Radionuclides	CI	D[1]-E[2]I	D[1]-E[2]I
Microbiological	E	E	E

Comments: [1]frozen; [2]liquid preservative.

<476 >
-465-

Kurt Benirschke
San Diego Zoo;
San Diego, CA 92112
(714) 234-5151

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	CI	I

Comments:

* * * * *

<477>
-469-

J. Hoyt Bowers
Dept. of Biology; Wayland Baptist College;
Plainview, TX 79072
(806) 296-5521, ext. 44, 67

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<478>
-468-

Charles M. Drabek
Dept. of Biology; Central State Univ.;
Edmond, OK 73034
(405) 341-2980, ext. 2922

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<479>

-473-

Jay Dee Druecker
Dept. of Biology; Chaldron State College;
Chaldron, NB 69337
(308) 432-4451, ext. 295

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]formalin.

* * * * *

<480>

-471-

Richard J. Baldauf; Education Dept.;
Kansas City Museum; 3218 Gladstone Blvd.
Kansas City, MO 64123
(816) 483-8300

Component	Sampling	Storage	Overall
Trace Element	CI	D[1]-E[2]I	D[1]-E[2]I
Trace Organic	CI	D[1]-E[2]I	D[1]-E[2]I
Pesticides	CI	D[1]-E[2]I	D[1]-E[2]I
Radionuclides	CI	D[1]-E[2]I	D[1]-E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

* * * * *

<481>

-472-

John F. Belshe, Dept. of Biology;
Central Missouri State University;
Warrensburg, MO 64093
(816) 429-4933

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

<482> John Bursewicz
Dept. of Biology; Culver Stockton College;
-470- Canton, MO 63435
(314) 288-5221, ext. 40

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<483> Elizabeth S. Wing
Florida State Museum;
-474- Gainesville, FL 32611
(904) 392-1721

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<484> Charles Futch; Florida Dept. of Natural
Resources; Marine Research Lab.; 100 8th
-475- Ave. SE; St. Petersburg, FL 33701
(813) 896-8626

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<485> J. Frank Cassel; Dept. of Zoology;
North Dakota State University;
-488- Fargo, ND 58102
(701) 237-8436

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

* * * * *

<486> Carl B. Schreck; Fisheries and Wildlife;
Virginia Polytechnic Inst. and State Univ.;
-490- Blacksburg, VA 24060
(703) 951-6944

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<487> William T. Helm
Wildlife Science; Utah State University;
-489- Logan, UT 84322
(801) 752-4100, ext. 7934

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<488> Bill Calloway; Texas Instruments, Inc.;
P.O. Box 5621, M/S 949;
-487- Dallas, TX 75222
(214) 238-4221

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<489> Charles F. Saylor
TVA Fisheries Laboratory;
-486- Norris, TN 37838
(615) 494-7173

Component	Sampling	Storage	Overall
Trace Element	E	E	E
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	E	E	E
Microbiological	E	E	E

Comments:

* * * * *

<490> Alice Lipson; R. Lynn Moran; Martin
Marietta Laboratories; 1450 S. Rolling Rd.;
-491- Baltimore, MD 21227
(301) 247-0700

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<491> Steven M. Shapiro; Massachusetts Div.
of Fisheries & Game; Field Headquarters;
-495- Westboro, MA 01581
(617) 366-4479

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<492> Clarence L. Smith; Dept. of Ichthyology;
American Museum of Natural History; Central
-493- Park West at 79th; New York, NY 10024
(212) 873-1300, ext. 388

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

* * * * *

<493> Project Leader; Dept. of Interior;
Fish and Wildlife Service; P.O. Box 928;
-492- Warren, PA 16365
(814) 563-7991

Component	Sampling	Storage	Overall
Trace Element	C-DI	E	E
Trace Organic	C-DI	E	E
Pesticides	C-DI	E	E
Radionuclides	C-DI	E	E
Microbiological	E	E	E

Comments:

<494>
-494-

David M. Green Stephen B. Smith; Dept.
of Natural Resources; Cornell Univ.; RD 3
East Lake Rd.; Richfield Springs, NY 13439
(315) 858-5127

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<495>
-496-

Thomas M. Stauffer; Marquette Fish Research;
Michigan Dept. of Natural Resources; 484
Cherry Creek Rd.; Marquette, MI 49855
(906) 249-1611

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<496>
-497-

Charles R. Keller; Indiana Dept. of Natural
Resources; Div. of Fish & Wildlife; Patoka
Fish & Wildlife Area; Winslow, IN 47598
(812) 789-2724

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<497>
-498-

Branley A. Branson; Dept. of Biological Sciences; Eastern Kentucky University;
Richmond, KY 40475
(606) 622-2635

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E
Comments:			

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<498>
-499-

Frederick S. Barkalow, Jr.; P.O. Box 5577;
Dept. of Zoology; North Carolina State Univ.;
Raleigh, NC 27607
(919) 737-2591

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E
Comments:			

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<499>
-500-

William E. S. Carr; C. V. Whitney Lab.;
Univ. of Florida; Rt. 1, Box 121;
St. Augustine, FL 32084
(904) 824-8366; (904) 824-8367

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E
Comments:			

<500> Roland Wigley; National Marine Fisheries
Service; Woods Hole Biological Lab.;
-501- Woods Hole, MA 02543
(617) 548-5123

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<501> Thomas A. Clarke; Hawaii Institute of
Marine Biology; P.O. Box 1346
-502- Kaneohe, HI 96744
(808) 247-6631

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<502> Jay C. Quast; Auke Bay Biological Lab.;
US Dept. of Commerce; National Oceanic &
-503- Atmospheric Admin.; P.O. Box 155; Auke Bay,
AK 99821; (907) 789-7231

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<503> Thomas W. McKenney; National Marine Fisheries
Service; RR7A; Box 522A;
-507- Narragansett, RI 02882
(401) 789-9324

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<504> Linda H. Pequegnat
Dept. of Oceanography; Texas A&M Univ.
-506- College Station, TX 77843
(713) 846-2192

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<505> Paul R. Wagner; Dept. of Marine Science;
Louisiana State Univ.; 437 Country Club Rd.;
-504- Slidell, LA 70458
(504) 641-0192

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<506> Walter R. Latapie, Jr.; Marine Biological Lab.; Louisiana Wild Life & Fisheries
-505- Commission; P.O. Box 37; Grand Isle, LA 70358; (504) 787-2163

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<507> John P. Farney; Dept. of Biology;
Kearney State College;
-511- Kearney, NB 68847
(308) 236-4433

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<508> Allen E. Anderson; Colorado Div. of
Wildlife; P.O. Box 2287;
-516- Fort Collins, CO 80521
(303) 484-2836

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<509>

-517-

David M. Armstrong; Dept. Integrated Studies; University of Colorado; 128 Ketchum; Boulder, CO 80302
(303) 449-5711

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<510>

-515-

Richard E. Griffith, Jr.; Dept. Interior, Div. of Research; Wildlife Damage Research Station; P.O. Box 593; Twin Falls, ID 83301
(208) 733-0186

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<511>

-512-

Donald F. Hoffmeister; Museum of Natural History; Univ. of Illinois;
Urbana, IL 61801
(217) 333-2517

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

<512> Elmer C. Birney; Bell Museum of Natural
History; Univ. of Minnesota;
-521- Minneapolis, MN 55455
(612) 373-5645

Component	Sampling	Storage	Overall
Trace Element	I	D^1-E^{2}I	E^{2}I
Trace Organic	I	D^1-E^{2}I	E^{2}I
Pesticides	I	D^1-E^{2}I	E^{2}I
Radionuclides	I	D^1-E^{2}I	E^{2}I
Microbiological	E	E	E

Comments: ^{1}dry; ^{2}alcohol.

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<513> Glen C. Sanderson; Section of Wildlife
Research; Illinois Natural History Survey;
-510- Urbana, IL 61801
(217) 333-6870

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments: Could be useful but need more specific information.

* * * * *

<514> George C. West; Inst. of Arctic Biology;
University of Alaska;
-513- Fairbanks, AK 99701
(907) 479-7640

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<515> Charles V. Lucier; Alaska Dept. Fish &
Game; 333 Raspberry Rd.;
-514- Anchorage, AK 99502
(907) 344-0541, ext. 123, 124

Component	Sampling	Storage	Overall
Trace Element	C-DI	D-E[1]I	D-E[1]I
Trace Organic	C-DI	D-E[1]I	D-E[1]I
Pesticides	C-DI	D-E[1]I	D-E[1]I
Radionuclides	C-DI	D-E[1]I	D-E[1]I
Microbiological	E	E	E

Comments: [1] liquid preservative.

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<516> Stephen Russell
Dept. of Biological Science; Univ. of
-508- Arizona; Tucson, AZ 85721
(602) 884-1026

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<517> Robert D. Gustafson; US Fish and Wildlife
Services; Montezuma NW Refuge; RD 1, Box 232;
-518- Seneca Falls, NY 13148
(315) 568-5987

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<518> Leonard J. Greenfield; Dept. of Biology;
Univ. of Miami; P.O. Box 249118;
-520- Coral Gables, FL 33124
(305) 284-3973

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<519> Lawrence H. Robinson; US Dept. of Agric.,
Soil Conservation Service; 1370 Hamilton
-519- St.; P.O. Box 219; Somerset, NJ 08873
549-5595

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<520> Robert B. Finley, Jr.; Forest Service;
Computer Bldg.; 3825 E. Mulberry; Fort
-509- Collins, CO 80521
(303) 493-4855

Component	Sampling	Storage	Overall
Trace Element	DI	D^1-E^2I	D^1-E^2I
Trace Organic	DI	D^1-E^2I	D^1-E^2I
Pesticides	DI	D^1-E^2I	D^1-E^2I
Radionuclides	DI	D^1-E^2I	D^1-E^2I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

<521>

-555-

Norman J. Fashing
College of William and Mary;
Williamsburg, VA 23185
(804) 229-3000, ext. 240

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

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<522>

-554-

William Lyons; Florida Dept. of Natural
Resources; Marine Research Lab.; 100 8th
Ave. SE; St. Petersburg, FL 33701
(813) 896-8626

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<523>

-530-

Paul H. Carlson; Dept. of Entomology;
Florida A&M Univ.; P.O. Box 111;2826
Boatner St.; Tallahassee, FL 32307
(904) 222-8030, ext. 624; Home (904) 877-0480

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<524> William B. Ezell, Jr.; Dept. of Biology;
The Citadel; Citadel Campus;
-528- Charleston, SC 29409
(803) 723-0611, ext. 389 or 416

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

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<525> Louis J. Metz; Southeastern Forest
Experiment Station; US Forest Service; P.O.
-529- Box 12254; Research Triangle Park, NC 27709
(919) 549-8193

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<526> Charles H. Peterson
Dept. of Biology; Univ. of Maryland
-526- Catonsville, MD 21228
(301) 455-2243

Component	Sampling	Storage	Overall
Trace Element	DI	I	I
Trace Organic	DI	I	I
Pesticides	DI	I	I
Radionuclides	DI	I	I
Microbiological	E	E	E

Comments:

<527> Lewis Berner; Biological Sciences Div.;
-527- Univ. of Florida; 220 William Bartram Hall;
Gainesville, FL 32611
(904) 392-1175

Component	Sampling	Storage	Overall
Trace Element	I	E[1]I	E[1]I
Trace Organic	I	E[1]I	E[1]I
Pesticides	I	E[1]I	E[1]I
Radionuclides	I	E[1]I	E[1]I
Microbiological	E	E	E

Comments: [1] alcohol

* * * * *

<528> F. Harvey Pough; Dept. of Ecology &
-532- Systematics; Langmuir Lab.; Cornell Univ.;
Ithaca, NY 14850;
(607) 256-4447

Component	Sampling	Storage	Overall
Trace Element	E	E	E
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	E	E	E
Microbiological	E	E	E

Comments:

* * * * *

<529> Philip E. Ode
Dept. of Biology; Theil College;
-531- Greenville, PA 16125
(412) 588-8238

Component	Sampling	Storage	Overall
Trace Element	CI	D-E[1]I	D-E[1]I
Trace Organic	CI	D-E[1]I	D-E[1]I
Pesticides	CI	D-E[1]I	D-E[1]I
Radionuclides	CI	D-E[1]I	D-E[1]I
Microbiological	E	E	E

Comments: [1] liquid preservative.

<530> Richard C. Reardon; North East Forest
Experimental Station; US Forest Service;
-533- 151 Sanford St.; Hamden, CT 06514
(203) 772-0800, ext. 6154

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * * *

<531> George B. Craig
Dept. of Biology; Univ. of Notre Dame;
-523- Notre Dame, IN 46556
(219) 283-7366

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * * *

<532> Philip A. Lewis; Analytical Quality Control
Lab.; US Environmental Protection Agency;
-524- National Environ. Res. Center; MDARL, BMB 1014
Broadway; Cincinnati, OH 45268; (513) 684-2980

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	CI	E	E

Comments: Need storage space for many specimens.

<533> D. L. Deonier
Dept. of Zoology; Miami Univ.
-525- Oxford, OH 45056
(513) 529-5454

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]alcohol.

* * * * * *

<534> Robert C. Vande Hey; Div. of Natural
Sciences; St. Norbert College;
-522- De Pere, WI 54115
(414) 336-3181, ext. 465

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * * *

<535> Samuel L. H. Fuller; Dept. of Limnology;
Academy of Natural Sciences of Philadelphia;
-560- 19th St. and the Parkway; Philadelphia, PA
19103; (215) 567-3700, ext. 336

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<536> Bill Calloway; Texas Instruments, Inc.; P.O. Box 5621, M/S 949;
-558- Dallas, TX 75222
(214) 238-4221

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<537> James E. Gillaspy; Box 158; Dept. of Biology; Texas A&I University
-557- Kingsville, TX 78363
(512) 595-3803

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<538> Arwin V. Provonsha;
Dept. of Entomology; Purdue University;
-559- West Lafayette, IN 47906
(317) 493-9180

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<539> Armand Kuris
Inst. of Marine Sciences; UNC-CH;
-556- Morehead City, NC 28557
(919) 726-6841

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<540> Rae E. Baxter
Alaska Dept. of Fish & Game; Box 90
-540- Bethel, AK 99559
(907) 543-2433

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<541> H. R. Moffitt; Agricultural Research
Service; 3706 West Nob Hill Blvd.
-539- Yakima, WA 98902
(509) 248-4810, ext. 341

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<542> Alan J. Kohn
Dept. of Zoology; Univ. of Washington
-543- Seattle, WA 98195
(206) 543-1629

Component	Sampling	Storage	Overall
Trace Element	I	D^1-E^2I	E^2I
Trace Organic	I	D^1-E^2I	E^2I
Pesticides	I	D^1-E^2I	E^2I
Radionuclides	I	D^1-E^2I	E^2I
Microbiological	E	E	E

Comments: ^{1}dry; ^{2}liquid preservative.
May be of interest because of sampling site (Eniwetok Atoll).

* * * * *

<543> James Green; North Carolina Dept. of
Agriculture; Pest Control Div.; Agric.
-542- Bldg. Capitol Square; Raleigh, NC 27601
(919) 829-3556

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<544> W. A. Iselin; New Mexico Dept. of Agric.;
New Mexico State University;
-541- Las Cruces, NM 88003
(505) 646-3207

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<545> David G. Fellin; Project Leader;
US Dept. of Agric.; Forestry Sciences Lab.;
-546- Drawer G; Missoula, MT 59801
(406) 549-6511, ext. 3212

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<546> Carma Gilligan; US Forest Service;
Federal Building;
-549- Missoula, MT 59801
(406) 594-6511, ext. 3242

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<547> Carleton M. Clifford; James E. Keirans;
National Inst. of Allergy & Infectious
-548- Diseases; Rocky Mtn. Lab.; Hamilton, MT
59840; (406) 363-3211

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<548>
-547-

J. A. Onsager; Rangeland Insect Lab.;
US Dept. of Agric.; Agric. Research Service;
Montana State Univ.; Bozeman, MT 59715
(406) 994-3344; FTS (406) 587-4511

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<549>
-544-

John A. Wagner;
Dept. of Biology; Kendall College;
Evanston, IL 60204
(312) 869-5240, ext. 212

Component	Sampling	Storage	Overall
Trace Element	E	E	E
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	E	E	E
Microbiological	E	E	E

Comments:

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<550>
-538-

H. Evans; Dept. of Zoology and Entomology;
Colorado State University;
Fort Collins, CO 80521
(303) 491-5365

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<551> J. Keith Rigby
Dept. of Geology; Brigham Young Univ.
-535- Provo, UT 84601
(801) 374-1211, ext. 2457

Component	Sampling	Storage	Overall
Trace Element	E	E	E
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	E	E	E
Microbiological	E	E	E

Comments:

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<552> D. M. Tuttle
Experiment Station; Univ. of Arizona;
-534- Yuma, AZ 85364;
(602) 782-3836

Component	Sampling	Storage	Overall
Trace Element	DI	E	E
Trace Organic	DI	E	E
Pesticides	DI	E	E
Radionuclides	DI	E	E
Microbiological	E	E	E

Comments:

* * * * *

<553> Eugene C. Devenport; Brigham Young Univ.-
Hawaii Campus, Box 138: Aloha Center;
-537- Laie, HI 96762
(808) 293-9211, ext. 384

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<554>
-536-

H. M. Graham; USDA, ARS; Entomology Research Lab.; Cotton Insects Unit; P.O. Box 1033; Brownsville, TX 78520;
(512) 542-2516

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<555>
-545-

L. Duane Thurman; Dept. of Natural Sciences; Oral Roberts Univ.; 7777 S. Lewis;
Tulsa, OK 84105;
(918) 742-6161

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<556>
-553-

J. Gordon Edwards; Dept. of Entomology;
San Jose State University;
San Jose, CA 95114;
(408) 277-3002; Home (408) 258-1433

Component	Sampling	Storage	Overall
Trace Element	CI	D^1-E^{2}I	D^1-E^{2}I
Trace Organic	CI	D^1-E^{2}I	D^1-E^{2}I
Pesticides	CI	D^1-E^{2}I	D^1-E^{2}I
Radionuclides	CI	D^1-E^{2}I	D^1-E^{2}I
Microbiological	E	E	E

Comments: ^{1}dry; ^{2}alcohol.

<557>

-551-

Marius S. Wasbauer; California Dept. of
Food and Agric.; 1220 N. Street;
Sacramento, CA 95814
(916) 445-4521

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<558>

-552-

S. A. Sher
Dept. of Nematology; Univ. of California;
Riverside, CA 92502
(714) 787-4435; (714) 787-4432

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<559>

-550-

Jerry A. Powell
Dept. of Entomology; Univ. of California;
Berkeley, CA 94720;
(415) 642-3327

Component	Sampling	Storage	Overall
Trace Element	CI	D[1]-E[2]I	D[1]-E[2]I
Trace Organic	CI	D[1]-E[2]I	D[1]-E[2]I
Pesticides	CI	D[1]-E[2]I	D[1]-E[2]I
Radionuclides	CI	D[1]-E[2]I	D[1]-E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

<560> Leopoldo E. Caltagirone; Div. of Biological
Control; Univ. of California-Berkeley; 1050
-574- San Pablo Ave.; Albany, CA 94706;
(415) 642-7191

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

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<561> Allen W. Knight; Dept. of Water Science
and Engineering; Univ. of California, Davis;
-573- Davis, CA 95616;
(916) 752-0692

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<562> Walter J. Harman; Dept. of Zoology &
Physiology; Louisiana State Univ.;
-577- Baton Rouge, LA 70803;
(504) 388-1132

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<563>
-579-

Robert L. Newell
P.O. Box 1063;
Glendive, MT 59330;
(406) 365-3728

Component	Sampling	Storage	Overall
Trace Element	D-EI	E	E
Trace Organic	D-EI	E	E
Pesticides	D-EI	E	E
Radionuclides	D-EI	E	E
Microbiological	E	E	E

Comments:

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<564>
-576-

Kenneth B. Armitage; Dept. of Biology;
The Univ. of Kansas; 2619 Belle Crest Dr.;
Lawrence, KS 66044;
(913) 864-4373

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<565>
-575-

Warren U. Brigham; Dept. of Aquatic Biology;
Illinois Natural History Survey; Natural
Resources Bldg.; Urbana, IL 61801;
(217) 333-6889

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	E	E

Comments:

<566> Richard M. Johnson
Wisconsin Dept. of Natural Resources; Box D;
-564- Horicon, WI 53032;
(414) 485-4434

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<567> Charles B. Wurtz;
3220 Penn Street.;
-578- Philadelphia, PA 19129;
(215) 844-7461

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<568> Robert Winget; Center for Health &
Environmental Studies; Brigham Young Univ.;
-566- 786 Widtsoe Bldg.; Provo, UT 84601
(801) 374-1211, ext. 3991

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<569> Bill Calloway; Texas Instruments, Inc.;
P.O. Box 5621, M/S 949;
-565- Dallas, TX 75222
(214) 238-4221

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<570> Brenda Leistikow; College of Fisheries;
260 Fisheries Center; Univ. of Washington;
-568- Seattle, WA 98105
(206) 543-7838

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<571> Donald Tarter;
Marshall Univ.; Dept. of Biology;
-567- Huntington, WV 25701
(304) 696-2409

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<572>
-571-

Robert A. Sweeney; Great Lakes Lab.;
State Univ. College; 1300 Elemwood Ave.;
Buffalo, NY 14222;
(716) 862-5821

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<573>
-561-

Donely Hill; TVA Forestry, Fisheries and
Wildlife Development Laboratory;
Norris, TN 37838
(615) 494-7173, ext. 244

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<574>
-569-

Stanley Longfellow; Harold G. Nagel;
Dept. of Biology; Kearney State College;
Kearney, NB 68847
(308) 236-4074

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	I	E	E

Comments:

<575> Sally Dennis; TVA Forestry, Fisheries and
Wildlife Development Laboratory;
-563- Norris, TN 37838
(615) 494-7173, ext. 243

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<576> Fred G. Thompson; Dept. of Malacology;
Florida State Museum;
-562- Gainesville, FL 32601;
(904) 392-1721

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]alcohol.

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<577> B. K. Kunny;
Dept. of Biology; Beloit College;
-586- Beloit, WI 53511;
(608) 365-3391

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<578> John E. Gannon
-584- Biological Station; Univ. of Michigan;
Pellston, MI 49769
(616) 539-8545

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<579> J. A. Cummings; Dept. of Biology-
319; Univ. of Wisconsin-Whitewater;
-587- Whitewater, WI 53190
(414) 472-1090

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<580> Wayne B. Merkley; Dept. of Biology;
Drake University; 25th & University;
-585- Des Moines, IA 50311
(515) 271-2956

Component	Sampling	Storage	Overall
Trace Element	DI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	DI	E	E
Microbiological	E	E	E

Comments:

<581> Richard J. Neves
-582- 112 Holdsworth Hall; Univ. of Mass.;
Amherst, MA 01002
(413) 545-2757

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<582> Kim Ke Chung; The Frost Entomological
-580- Museum; Penn State Univ.; 201 Patterson
Bldg.; Univ. Park, PA 16802
(814) 865-1895

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	I	E	E

Comments: [1]dry; [2]liquid preservative.

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<583> Frank Ryck; Missouri Dept. of Conservation;
-581- 110 College Avenue;
Columbia, MO 65201
(314) 449-3761

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<584>
-583-

Luther A. Knight, Jr.; Dept. of Biology;
Univ. of Mississippi; 1855 Eastover Dr.;
Jackson, MS 39211
(601) 982-6226

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<585>
-570-

John Foley; Biological Monitoring; South
Carolina Dept. of Health and Environmental
Control; 2600 Bull St.; Columbia, SC 29201
(803) 758-3499

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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< 586>
-572-

Samuel L. H. Fuller; Academy of Natural
Sciences of Philadelphia; 19th St. and the
Parkway; Philadelphia, PA 19103
(215) 567-3700, ext. 336

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<587>
-593-

Curtis L. Nincombe; San Francisco Bay Marine Research Center; 8 Middle Rd.; Lafayette, CA 94549
(415) 254-5650

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

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<588>
-594-

William Sipple; Maryland Dept. of Natural Resources; Water Resources Admin.; Tawes State Office Bldg.; Annapolis, MD 21401
(301) 267-5877

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<589>
-588-

Sherman S. Hendrix
Dept. of Biology; Gettysburg College;
Gettysburg, PA 17325
(717) 334-3131, ext. 248

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<590>

-589-

Bernard J. McAlice; Oceanography; Ira C.
Darling Ctr.; Univ. of Maine; Darling Ctr.;
Walpole, ME 04573
(201) 563-3146

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<591>

-595-

Charles Collinson
Rm. 239 Natural Resources Bldg.;
Urbana, IL 61801
(217) 344-1481, ext. 201

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<592>

-596-

Lois S. Kent; 25 Natural Resources Bldg.;
Illinois State Geological Survey;
Urbana, IL 61801
(217) 344-1481, ext. 286

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<593>   John S. Pearse; Dept. of Biology;
        Coastal Marine Lab.; Univ. of California
-590-   at Santa Cruz; Santa Cruz, CA 95064
        (408) 429-0542

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

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<594>   John W. Icanberry; Dept. of Engineering
        Research; Pacific Gas & Electric Co.; 3400
-591-   Crow Canyon Rd.; San Ramon, CA 94583
        (415) 820-2000

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

* * * * *

<595>   Roderick A. Chisholm,II; Environmental
        Branch; US Army Corps of Engineers SF Dist.;
-592-   100 McAllister St.; San Francisco, CA 94102
        (415) 556-7471

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<596> Charles Sartwell; USDA; Forestry
Sciences Lab.; US Forest Service; 3200
-603- Jefferson Way; Corvallis, OR 97331;
(503) 752-4211, ext. 270

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]alcohol.

* * * * *

<597> Daniel T. Jennings; Rocky Mt. Forest &
Range Exp. Sta.; Rm. 5423, New Federal Bldg.;
-604- 517 Gold Ave.; Albuquerque, NM 87101
(505) 766-2384; (505) 766-2385

Component	Sampling	Storage	Overall
Trace Element	I	D[1]-E[2]I	E[2]I
Trace Organic	I	D[1]-E[2]I	E[2]I
Pesticides	I	D[1]-E[2]I	E[2]I
Radionuclides	I	D[1]-E[2]I	E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]alcohol.

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<598> Robert T. Allen
Dept. of Entomology; Univ. of Arkansas;
-605- Fayetteville, AR 72701
(501) 575-2451

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<599> John B. Harbo; Bee Breeding and Stock
Center Lab.; Rural Rt. 3; Box 82-B; Ben
-606- Hur Rd.; Baton Rouge, LA 70808
(504) 766-6064

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

* * * * *

<600> A. K. Burditt, Jr.
13601 Old Cutler Road;
-600- Miami, FL 33158
(305) 238-9322

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

* * * * *

<601> Harry O. Yates, III
Forest Sciences Lab.; US Forest Service;
-598- Athens, GA 30602
(404) 546-2435

Component	Sampling	Storage	Overall
Trace Element	CI	D[1]-E[2]I	D[1]-E[2]I
Trace Organic	CI	D[1]-E[2]I	D[1]-E[2]I
Pesticides	CI	D[1]-E[2]I	D[1]-E[2]I
Radionuclides	CI	D[1]-E[2]I	D[1]-E[2]I
Microbiological	E	E	E

Comments: [1]dry; [2]liquid preservative.

<602> Daniel R. Kucera; USDA Forest Service;
P.O. & Federal Bldg.; 80 Daniel St.;
-599- Portsmouth, NH 03801
(603) 436-7720, ext. 765

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<603> Glenn Belyea
8051 Clark Rd.;
-602- Bath, MI 48808
(517) 641-4224

Component	Sampling	Storage	Overall
Trace Element	D-E[1]I	DI	D-E[1]I
Trace Organic	D-E[1]I	DI	D-E[1]I
Pesticides	D-E[1]I	DI	D-E[1]I
Radionuclides	D-E[1]I	DI	D-E[1]I
Microbiological	E	E	E

Comments: [1] cyanide jar.

* * * * *

<604> Sigurd O. Nelson, Jr.;
Dept. of Zoology; State Univ. of New York;
-607- Oswego, NY 13126;
(315) 341-4249

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

<605> Lester P. Gibson; US Forest Service;
Northeastern Forest Experiment Sta.; P.O.
-609- Box 365; Delaware, OH 43015
(614) 369-4471

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<606> Glen Erickson; North Central Forest Exp.
Sta.; USDA Forest Service; Folwell Ave.;
-608- St. Paul, MN 55101
(612) 645-0841

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments:

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<607> Alexander P. Grantt; North Carolina Dept.
of Agric.; Analytical Div.; Agric. Bldg.
-610- Capitol SQ; Raleigh, NC 27601
(919) 829-3571

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<608> R. J. Lavigne
P.O. Box 3354; University Station;
-597- Laramie, WY 82071
(307) 766-5199

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<609> Charles E. Cheston; Dept. of Forestry;
The University of the South;
-611- Sewannee, TN 37375
(615) 598-5182

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<610> Robert E. Carter
School of Medicine; Univ. of Minnesota;
-612- Culuth, MN 55812
(218) 726-7571

Component	Sampling	Storage	Overall
Trace Element	I	E	E
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	E	E
Microbiological	E	E	E

Comments:

<611> Donald D. Runnells; Dept. of Geological
Sciences; University of Colorado;
-614- Boulder, CO 80302
(303) 443-2211, ext. 8323

Component	Sampling	Storage	Overall
Trace Element	CI	D-EI	D-EI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	D-EI	D-EI
Microbiological	E	E	E

Comments:

* * * * *

<612> Kenneth D. Woodruff; Delaware Geological
Survey; 101 Penny Hall; Univ. of Delaware;
-613- Newark, DE 19711
(302) 738-2833

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<613> Max Springer; Dept. of Plant & Soil
Science; P.O. Box 1071; Univ. of Tennessee;
-620- Knoxville, TN 37916
(615) 974-7101

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<614>
-616-

William J. Lucas; Dept. of Agric.;
Forest Service; Bldg. 85; Denver Federal
Center; Denver, CO 80225
(303) 234-4365

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<615>
-615-

Arthur B. Onken; Texas Agric. Exp. Sta.;
Texas A & M Univ. Agric. Exp. Sta. at Lubbock;
Rt. #3; Lubbock, TX 79401
(806) 746-6101

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	E	E

Comments:

* * * * *

<616>
-618-

James R. Brown; Dept. of Agronomy;
Univ. of Missouri; 139 Mumford Hall;
Columbia, MO 65201
(314) 882-6643

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

<617> Robert S. Johnston; Forestry Sciences
Lab.; 860 North 12th East;
-617- Logan, UT 84321
(801) 752-1311

Component	Sampling	Storage	Overall
Trace Element	CI	D[1]I	D[1]I
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	D[1]I	D[1]I
Microbiological	E	E	E

Comments: [1]No permanent storage.

* * * * *

<618> Scott J. Williams
Peru State College;
-621- Peru, NB 68421
(402) 872-6415

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<619> Brian L. McNeal; Dept. of Agronomy &
Soils; Washington State University;
-619- Pullman, WA 99163
(509) 335-3650

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	D-E[1]I	E[1]I
Pesticides	I	D-E[1]I	E[1]I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments: [1]plastic.

<620> Alan Davis; Coal Research Section;
513 Deike; Pennsylvania State Univ.;
-622- University Park, PA 16802
(814) 865-6544

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	CI	D-E[1]I	D-E[1]I
Pesticides	CI	D-E[1]I	D-E[1]I
Radionuclides	DI	DI	DI
Microbiological	CI	E	E

Comments: [1]plastic liner.

* * * * *

<621> H. Wesley Peirce
Univ. of Arizona; Arizona Bureau of Mines;
-627- Tucson, AZ 85721
(602) 844-2733

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

* * * * *

<622> John Thrailkill
Dept. of Geology; Univ. of Kentucky;
-625- Lexington, KY 40506
(606) 257-3758

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<623>

-623-

Ernest E. Russell; P.O. Drawer R;
Mississippi State University;
Mississippi State, MS 39762
(601) 325-5926

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<624>

-624-

Glenna Wiley; Edward N. Wilson; Kentucky
Geological Survey; Univ. of Kentucky;
Lexington, KY 40506
257-1677; (606) 257-2696

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

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<625>

-626-

Richard Davis;
Fernbank Science Center; 156 Heaton Park
Dr. NE; Atlanta, GA 30307
(404) 378-4311

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

<626>
-628-

George H. Keller; NOAA Alantic Oceanographic
and Meteorogical Labs.; 15 Rickenbacher Cswy.;
Virginia Key; Miami, FL 33149
(305) 361-3361, ext. 353

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

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<627>
-630-

Floyd C. Larson; Water Resources Research
Center; Univ. of Tennessee;
Knoxville, TN 37916
(615) 974-2151

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<628>
-629-

Teng Chung-Wu; California Regional Water
Quality Control Board; 1111 Jackson St.;
Oakland, CA 94612
(415) 464-1255

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<629>
-631-

John Carothers; US Army Corps of Engineers;
Charleston District; P.O. Box 919;
Charleston, SC 29402
(803) 577-4171, ext. 258

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<630>
-632-

James A. Harris
Corps of Engineers; P.O. Box 2288;
Mobile, AL 36628
(205) 690-2724

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

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< 631>
-633-

Donald K. Atwood; Dept. of Marine Sciences;
University of Puerto Rico;
Mayagez, PR 00700
(809) 892-2482

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

<632> Peggy Davis
-634- Code 4503 Naval Weapons Center;
China Lake, CA 93555
(714) 939-6219

Component	Sampling	Storage	Overall
Trace Element	I	D-EI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	D-EI	I
Microbiological	E	E	E

Comments:

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<633> Robert Wilkins
-635- 1760 Walnut St.; P.O. Box 38;
Red Bluff, CA 96080
(916) 527-4504

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	DI	I	I
Pesticides	DI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

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<634> Ronald G. Draftz
-636- IIT Research Inst.; 10 W. 35th Street;
Chicago, IL 60616
(312) 225-9630, ext. 5147

Component	Sampling	Storage	Overall
Trace Element	CI	CI	CI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	CI	CI
Microbiological	E	E	E

Comments:

<635> Bernard E. Saltzman; Kettering Lab.;
College of Medicine; Univ. of Cincinnati;
-637- 3223 Eden Ave.; Cincinnati, OH 45219
(513) 872-5709

Component	Sampling	Storage	Overall
Trace Element	BI	CI	CI
Trace Organic	E	E	E
Pesticides	E	E	E
Radionuclides	BI	CI	CI
Microbiological	E	E	E

Comments: May be of interest for trace elements and radionuclides if cleaned and stored properly.

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<636> James York
3500 Tudor Rd.;
-639- Anchorage, AK 99504
(907) 279-8684, ext. 341

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	DI	DI
Pesticides	CI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

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<637> P. W. Hodge
Dept. of Astronomy; Univ. of Washington;
-638- Seattle, WA 98195
(206) 543-2888

Component	Sampling	Storage	Overall
Trace Element	EI	EI	EI
Trace Organic	EI	EI	EI
Pesticides	EI	EI	EI
Radionuclides	EI	EI	EI
Microbiological	E	E	E

Comments:

<638> Jerry Garro; Akron Region;
Air Pollution Control Agency ; 177 S.
-640- Broadway; Akron, OH 44308
(216) 375-2480

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

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<639> A. W. Hogan; Atmospheric Sciences
Research Center; 130 Saratoga Rd.
-641- Scotia, NY 12302
(518) 377-6477

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

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<640> Willem Meijer; Curator, Herbarium;
School of Biological Sciences; Funkhouser 216;
-359- Univ. of Kentucky; Lexington, KY 40506
(606) 257-2740

Component	Sampling	Storage	Overall
Trace Element	I	D[1]I	D[1]I
Trace Organic	I	D[1]I	D[1]I
Pesticides	I	D[1]I	D[1]I
Radionuclides	I	D[1]I	D[1]I
Microbiological	E	E	E

Comments: [1] if not immersed in $HgCl_2$ solution.

<641>
-643-

G. Dennis Cooke
Dept. of Biology; Kent State Univ.;
Kent, OH 44242
(216) 672-3429

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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<642>
-642-

Curtis J. Richardson; School of Natural
Resources; Univ. of Michigan; E. Univ. Ave.;
Ann Arbor, MI 48104
(313) 763-2239

Component	Sampling	Storage	Overall
Trace Element	CI	C[1]-DI	C[1]-DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	C[1]-DI	C[1]-DI
Microbiological	E	E	E

Comments: [1]water frozen.

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<643>
-644-

R. J. Goodland
Box AB;
Millbrook, NY 12545
(914) 677-5072

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<644 >

-645-

Paul V. Nelson; Dept. of Horticultural
Science; P.O. Box 5216; North Carolina State
Univ.; Raleigh, NC 27607
(919) 737-3132

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	E	E
Pesticides	I	E	E
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<645>

-646-

William C. Denison;
Dept. of Botany; Oregon State Univ.;
Corvallis, OR 97331
(503) 754-1106

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

* * * * *

<646 >

-648-

Clinton E. Carlson
Federal Building;
Missoula, MT 59801
(406) 542-2930

Component	Sampling	Storage	Overall
Trace Element	CI	DI	DI
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	DI	DI
Microbiological	E	E	E

Comments:

<647>
-647-

N. Stark; School of Forestry;
University of Montana;
Missoula, MT 59801
(406) 243-2913

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	D-E[1]I	E[1]I
Pesticides	I	D-E[1]I	E[1]I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments: [1] plastic.

* * * * *

<648>
-649-

Richard F. Watt; North Central Forest
Experiment Station; Missouri;
Columbia, MO 65201
(314) 882-2668

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<649>
-650-

Frank F. Munshower; Dept. of Animal
and Range Science; Montana State Univ.;
1407 S. Bozeman; Bozeman, MT 59715
(406) 994-4821

Component	Sampling	Storage	Overall
Trace Element	I	C[1]-DI	DI
Trace Organic	I	C[1]-DI	DI
Pesticides	I	C[1]-DI	DI
Radionuclides	I	C[1]-DI	DI
Microbiological	E	E	E

Comments: [1] frozen.

<650>
-652-

Sammy D. Atwell; Dept. of Agronomy;
Univ. of Missouri; Extension; Courthouse;
New Madrid, MO 63869
(314) 748-5531

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<651>
-651-

Richard L. Maples; Soil Testing Lab.;
Univ. of Arkansas; P.O. Box 767;
Marianna, AR 72360
(501) 295-2851

Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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<652>
-653-

Donald C. Hartman; State of Alaska;
Dept. of Nat. Res.; Div. of Geological and
Geophysical Surveys; 3001 Porcupine Dr.;
Anchorage, AK 99501; (907) 279-1433

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

<653> Roy J. Helfinstine; Illinois State Geological
Survey; Natural Resources Building;
-654- Urbana, IL 61801
(217) 344-1481

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

* * * * *

<654> Robert K. Wyeth; Great Lakes Lab.;
State Univ. College; 1300 Elmwood Ave.;
-655- Buffalo, NY 14222
(716) 826-5821

Component	Sampling	Storage	Overall
Trace Element	CI	C[1]-D[2,3]I	C[1]-D[2,3]I
Trace Organic	CI	C[2]-E[1,3]I	C[2]-E[1,3]I
Pesticides	CI	C[2]-E[1,3]I	C[2]-E[1,3]I
Radionuclides	CI	C[1]-D[2,3]I	C[1]-D[2,3]I
Microbiological	E	E	E

Comments: [1]plastic; [2]glass; [3]ashed.

* * * * *

<655> P. A. Fuqua; Hanford Environmental
Health Foundation; P.O. Box 100;
-656- Richland, WA 99352
(509) 942-6414

Component	Sampling	Storage	Overall
Trace Element	CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments: Results for trace elements may be of interest, but sample not stored.

<656> Douglas Tubbs; Ventura County Air Pollution
Control Dist.; 625 E. Santa Clara St.;
-657- Ventura, CA 93001
(805) 648-6131, ext. 2668

Component	Sampling	Storage	Overall
Trace Element	DI	I	I
Trace Organic	E	I	E
Pesticides	E	I	E
Radionuclides	DI	I	I
Microbiological	E	E	E

Comments:

* * * * *

<657> Edward Hyne
165 Capitol Avenue
-658- Hartford, CT 06115
(203) 566-3310

Component	Sampling	Storage	Overall
Trace Element	.CI	I	I
Trace Organic	CI	I	I
Pesticides	CI	I	I
Radionuclides	CI	I	I
Microbiological	E	E	E

Comments:

* * * * *

<355> Charles F. Quibell; North Coast Herbarium;
Dept. of Biology; California State College,
-346- Sonoma; Rohnert Park, CA 94928
(707) 795-2189; (707) 795-2303

Component	Sampling	Storage	Overall
Trace Element	DI	DI	DI
Trace Organic	DI	DI	DI
Pesticides	DI	DI	DI
Radionuclides	DI	DI	DI
Microbiological	E	I	E

Comments: Samples date back to 1890.

< * >

Dr. M. Christensen
Botany Dept.; Univ. of Wyoming;
Larmie, WY 82070
766-2380

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	I	I	I

Comments:

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< * >

Dr. Robert R. Rofen; Aquatic Research
Inst.; 21393 Curtis Street;
Hayward, CA 94545
(415) 785-2216

Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

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< * >

Lawrence L. DeMott
Dept. of Geology; Knox College;
Galesburg, IL 61401

Component	Sampling	Storage	Overall
Trace Element	I	I	I
Trace Organic	I	I	I
Pesticides	I	I	I
Radionuclides	I	I	I
Microbiological	E	E	E

Comments:

*Not included in National Environmental Specimen Bank Survey, Rept. #EPA-600/1-75-006 Jan. 1976.

< * > Dr. Johnnie B. Collins; Texas A&M
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Component	Sampling	Storage	Overall
Trace Element	CI	E	E
Trace Organic	CI	E	E
Pesticides	CI	E	E
Radionuclides	CI	E	E
Microbiological	E	E	E

Comments:

* * * * *

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Component	Sampling	Storage	Overall
Trace Element	DI	E	E
Trace Organic	DI	E	E
Pesticides	DI	E	E
Radionuclides	DI	E	E
Microbiological	E	E	E

Comments:

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Component	Sampling	Storage	Overall
Trace Element	I	DI	I
Trace Organic	I	DI	I
Pesticides	I	DI	I
Radionuclides	I	DI	I
Microbiological	E	E	E

Comments:

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